

1. BOSC 2017 Nominations

Self Nomination:

No

Nominator Information

First Name

William

Last Name

Battye

Nominator Title

Senior Scientist

Street Address

Exemption 6

Nominee Information

First Name

Viney

Last Name

Aneja

Nominee Title

Dr.

Street Address

333 Forsyth Street

City

Raleigh

State

NC

Postal Code

27609

Email Address

vpaneja@ncsu.edu

Phone Number

919-515-7808

Mobile Phone

919-816-6874

Employment Information

Place of Employment/Work:

NCSU

Work Street Address

5136 Jordan Hall

Work City

Raleigh

Work State:

NC

Work Postal Code

27695-8208

Work Phone Number

919-515-7808

Work Email Address

vpaneja@ncsu.edu

Sector

Other - Write In (Required): Industry and academia

Qualifications

Primary Area(s) of Expertise

Emission, transport, transformation, and fate of pollutants; agricultural air quality; biogeochemical cycling of pollutants; measurement and modeling of biogenic emissions of trace gases; photochemical oxidants and gas-to-particle conversion; biospheric-atmospheric interactions; bioenergy; aqueous waste purification; bioenvironmental engineering; and pollutant monitoring and control

Committee Preference(s)

Executive Committee

Air, Climate, and Energy Subcommittee

Statement of Interest

Dr. Aneja has also had a long and distinguished record of public service, and he has been frequently sought as a lecturer and consultant to the Federal and State governments, professional societies, international organizations, and the private sector on issues related to environmental science and public policy. In 2000, he was a member of the North Carolina Delegation to the Netherlands on Agricultural Air Quality; in 2001, he was leader of the U.S. Department of State Delegation to France on Environment Science and Technology; and during 2013, he served as the leader for the US Department of Agriculture to Rothamsted, UK, on International Research Program on Agricultural Nitrogen.

Skills/qualifications related to committee preference(s) specified

He conducted and supervised research at Corporate Research and Development, General Electric Company, New York; and Northrop Services, in Research Triangle Park, NC, in the areas of environmental

science and engineering and separations technology.

He has served on the US Environmental Protection Agency's Board of Scientific Counselors (BOSC) Executive Committee, and as a Chair of the BOSC Subcommittee for Air, Climate, and Energy (ACE) research program. The U.S. Secretary of Agriculture appointed him as a member of the U.S. Agricultural Air Quality Task Force, 2001-2008. He was a member of the US Environmental Protection Agency's Science Advisory Board Environmental Engineering Committee; a Member of U.S. EPA's Science Advisory Board (SAB) Advisory Committees on Sustainability Research Strategy and Multi-Year Plan, 2006-2007; the Aging Drinking Water and Waste Water Infrastructure Research Initiative, 2009; the Integrated Nitrogen Committee, 2006-2010; the Committee on Hydraulic Fracturing, 2010; and served as a Member of EPA's Science Advisory Board (SAB) Panel on Estimating Air Emissions from Animal Feeding Operations, 2012-2013. The Governor of the State of North Carolina, Mike Easley, appointed him as a Member of NC Governor's Task Force on Hazardous Materials, 2006-2007.

Other Relevant Information

Dr. Aneja's research contributions have been extensively recognized. He won the Noryl Division Proprietary Innovation Award from General Electric in 1983, the Air Pollution Control Association Award for Distinguished Service in 1984, and the General Electric Managerial Award in 1986. In 1998, the Air and Waste Management Association gave him its Frank A. Chambers Award, the Association's highest scientific honor; in 1999 he became a Fellow of the Association; and in 2001 he received the Association's Lyman A. Ripperton Award. He is the recipient of the 2007 North Carolina Award in Science, the highest award a civilian can receive from the Governor of North Carolina.

He has published over 175 scientific papers, 127 book chapters and conference proceedings scientific papers, 47 technical reports, five US patents, and two books pertaining to his research.

CV/Resume URL

2. CV/Resume

Please upload your CV/ Resume.

[Aneja_Full_Resume_2017.docx](#)

3.

BOSC Nomination

Jun 23, 2017 12:23:37 Success: Email Sent to: tracy.tom@epa.gov

4. Thank You for your Submission!

BIOGRAPHICAL SKETCH

Viney P. Aneja

Viney Aneja is a Professor and a Co-Director of Graduate Programs in the Department of Marine, Earth, and Atmospheric Sciences, North Carolina State University. He obtained his B. Tech. degree in Chemical Engineering from the Indian Institute of Technology, Kanpur, India; and M.S. and Ph.D. degrees from the Department of Chemical Engineering, N.C. State University, Raleigh, NC.

Before joining the faculty of the Department of Marine, Earth, and Atmospheric Sciences at N.C. State in 1987, he conducted and supervised research at Corporate Research and Development, General Electric Company, New York; and Northrop Services, in Research Triangle Park, NC, in the areas of environmental science and engineering and separations technology. In 2001 he was also appointed Professor of Environmental Technology, in the Department of Forestry and Environmental Resources.

In addition, he was a visiting professor at the University of Uppsala, Sweden in 1979; at the Arrhenius Laboratory in Stockholm, Sweden in 1985 and 2015; and at the Indian Institute of Technology, Kanpur, India, in 2015. In 2015 he was awarded the position of the Rossby Visiting Fellow at the University of Stockholm, Sweden; and that of the Indira Foundation Distinguished Visiting Fellow at TERI University, New Delhi, India.

He was recently appointed to the US Environmental Protection Agency's Board of Scientific Counselors (BOSC) Executive Committee, and as a Chair of the BOSC Subcommittee for Air, Climate, and Energy (ACE) research program, 2014-2017. The U.S. Secretary of Agriculture appointed him as a member of the U.S. Agricultural Air Quality Task Force, 2001-2008. He was a member of the US Environmental Protection Agency's Science Advisory Board Environmental Engineering Committee; a Member of U.S. EPA's Science Advisory Board (SAB) Advisory Committees on Sustainability Research Strategy and Multi-Year Plan, 2006-2007; the Aging Drinking Water and Waste Water Infrastructure Research Initiative, 2009; the Integrated Nitrogen Committee, 2006-2010; the Committee on Hydraulic Fracturing, 2010; and served as a Member of EPA's Science Advisory Board (SAB) Panel on Estimating Air Emissions from Animal Feeding Operations, 2012-2013. The Governor of the State of North Carolina, Mike Easley, appointed him as a Member of NC Governor's Task Force on Hazardous Materials, 2006-2007. He is a Member Representative of the University Corporation for Atmospheric Research, Boulder, CO.

Dr. Aneja's industrial and academic research contributions have been extensively recognized. He won the Noryl Division Proprietary Innovation Award from General Electric in 1983, the Air Pollution Control Association Award for Distinguished Service in 1984, and the General Electric Managerial Award in 1986. At North Carolina State University, he received the 1991-92 Outstanding Extension Service Award. In 1998, the Air and Waste Management Association gave him its Frank A. Chambers Award, the Association's highest scientific honor; in 1999 he became a Fellow of the Association; and in 2001 he received the Association's Lyman A. Ripperton Award for distinguished achievement as an educator. He is the recipient of the 2007 North Carolina Award in Science, the highest award a civilian can receive from the Governor of North Carolina. In 2009, he received the Senior National Research Council (NRC) Research Associateship. In 2010, he received the Distinguished Alumnus Award from the Indian Institute of Technology Kanpur, India. In 2010, he was invited by the U.S. White House Council on Environmental Quality to assist in the BP Gulf Spill investigation and assessment.

At North Carolina State University, Dr. Aneja has developed one of the nation's leading agricultural air-quality and climate research programs (<http://www.meas.ncsu.edu/airquality>). He has published over 175 scientific papers, 127 book chapters and conference proceedings scientific papers, 47 technical reports, five US patents, and two books pertaining to his research. Dr. Aneja has directed eight post-doctoral fellows, 15 students preparing doctoral dissertations, and 40 students preparing their masters' theses.

Much of his work has focused on the science needed to make important decisions on environmental, sustainability, and climate policies in North Carolina and the nation. He has conducted research on natural and anthropogenic (i.e., originating from human activity) emissions of nitric oxide, ammonia, and sulfur compounds and has demonstrated the important roles of these substances in ozone formation and gas-to-particle conversion. His research on atmospheric photochemical oxidants in the North Carolina mountains has clarified the role of long-range transport of pollutants and impact of these compounds on the formation of acid rain and on the damage to trees at high elevation. His most recent research has concentrated on the critical issue of the contribution of concentrated animal feeding operations (also known as CAFOs) to air quality; and quantifying the emissions, transformation, transport and fate of pollutants in the environment, and climate. His contributions have been featured on media outlets including CNN, ABC, CBS, NBC, National Public Radio, Public Broadcasting Service, The New York Times, The Raleigh News&Observer, Associated Press, Bloomberg News, Environmental Manager, Fortune magazine, and The Wire (India), among others.

Dr. Aneja's research has enjoyed support from a broad base of public and private sources. While conducting his extensive research, Dr. Aneja has maintained a heavy teaching load. He teaches a large and popular introductory courses (Introduction to Weather and Climate; and Climate Change and Sustainability), and two upper division air quality course (Fundamentals of Air Pollution; and Fundamentals of Air Quality and Climate Change), and graduate courses, and has also given numerous short courses to public and private sector audiences.

Dr. Aneja has also had a long and distinguished record of public service, and he has been frequently sought as a lecturer and consultant to the Federal and State governments, professional societies, international organizations, and the private sector on issues related to environmental science and public policy. In 2000, he was a member of the North Carolina Delegation to the Netherlands on Agricultural Air Quality; in 2001, he was leader of the U.S. Department of State Delegation to France on Environment Science and Technology; and during 2013, he served as the leader for the US Department of Agriculture to Rothamsted, UK, on International Research Program on Agricultural Nitrogen.

He served as a Director of the Air and Waste Management Association, and Chair of the Association's Education Council; served as a member of the Technical Advisory Committee of the North Carolina Environmental Defense Fund; and as a member of the North Carolina Progress Board. He has served on the editorial boards of the journals *Environmental Pollution*, *Chemosphere*, *Journal of the Air and Waste Management Association*, and *Environmental Management*; and currently serves as Editorial Board Member of the international journals *Environmental Science*; and *Atmospheres*; and Associate Editor for the *International Journal of Air Quality, Atmosphere, and Health*; *International Journal of Applied Environmental Sciences*; *International Journal of Atmospheric Pollution Research*; and the *Journal of Environmental Research and Management*; and on the Reader Advisory Panel of *Nature*, and *The Washington Post* Advisory Panel.

CURRICULUM VITAE

VINEY P. ANEJA

U.S. Citizen

(919) 515-7808 OFFICE

(919) 515-7802 FAX

VINEY_ANEJA@NCSU.EDU EMAIL

<http://www.meas.ncsu.edu/airquality>

EDUCATION

Ph.D. 1977	North Carolina State University, Raleigh, NC Major: Chemical Engineering Minor: Polymer Science and Operations Research
M.S. 1975	North Carolina State University, Raleigh, NC Major: Chemical Engineering
B. Tech. 1971	Indian Institute of Technology, Kanpur, India Major: Chemical Engineering
MBA 1986	Union College, Schenectady, NY Major: Planning and Control

PROFESSIONAL APPOINTMENTS

2016 -	Co-Director Graduate Programs, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC
2002 -	Professor, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC
2001 -	Professor, Environmental Technology, College of Natural Resources, North Carolina State University, Raleigh, NC
1995 - 2002	Research Professor, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC
1994 - 1995	Tenured, Research Associate Professor, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC
1990 - 1994	Research Associate Professor, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC
1987 - 1989	Visiting Associate Professor, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC
2015	Rosby Visiting Professor University of Stockholm, Sweden
2015	Visiting Professor Indian Institute of Technology, Kanpur, India
2015	Indira Foundation Distinguished Visiting Professor TERI University, New Delhi, India
1985	Visiting Professor The Arrhenius Laboratory, Stockholm, Sweden

1980 - 1987	Staff Chemical Engineer General Electric Company, Schenectady, NY
1979	Visiting Professor University of Uppsala, Uppsala, Sweden
1979 - 1980	Project Scientist Northrop Services, Inc., Research Triangle Park, NC
1977 - 1979	Senior Scientist Northrop Services, Inc., Research Triangle Park, NC
1976 - 1977	Member Research Staff Northrop Services, Inc., Research Triangle Park, NC
1973 - 1975	Member Scientific Staff Brookhaven National Laboratory, Upton, L.I., NY

AWARDS AND HONORS

Indira Foundation Distinguished Visiting Fellow at TERI University, New Delhi, India, October-November, 2015.

Rossby Visiting Fellow, University of Stockholm, Sweden, May-June, 2015.

Executive Committee Member, US Environmental Protection Agency's Board of Scientific Counselors (BOSC), 2014-2017.

Chairman of the US EPA's Board of Scientific Counselors' Air, Climate, and Energy (ACE) Subcommittee, 2014-2017.

Member, EPA's Science Advisory Board Committee on Estimating Air Emissions from Animal Feeding Operations, 2012-2013.

Distinguished Alumnus Award, Indian Institute Of Technology, Kanpur, India, 2010.

White House Council on Environmental Quality's Conference Calls on BP Gulf Spill, May 2010.

Advisor to First Place Ph.D. Platform Paper, Air and Waste Management Association, 2010.

Member, EPA's Science Advisory Board Committee on Hydraulic Fracturing, 2010.

Senior National Research Council Research Associateship, 2009.

Air and Waste Management Association's First Place Master's Thesis Award Advisor, 2009.

Member, EPA's Science Advisory Board Committee on Aging Drinking Water and Waste Water Infrastructure Research Initiative, 2009.

North Carolina Governor's Award in Science, 2007.

Director, Air and Waste Management Association, 2008-2010.

Chair, Air & Waste Management Association Education Council, 2008-2010.

Member, NC Governor's Task Force on Hazardous Materials, 2006-2007.

Member, EPA's Science Advisory Board Committee on Integrated Nitrogen, 2006-2010.

Member Representative, University Corporation for Atmospheric Research, Boulder, CO, 2006-Present.

Member, United States Environmental Protection Agency's Science Advisory Board, Environmental Engineering Committee, 2004-2010.

Member, EPA Science Advisory Board, Environmental Engineering Committee, Advisory on EPA's Sustainability Research Strategy and Multi-Year Plan, 2006-2007.

NC State University Panhellenic Association Outstanding Educator Award, 2004-2005.

Vice Chair, Air & Waste Management Association Education Council, 2005-2008.

Certificate of Appreciation, Southern Appalachian Mountain Institute (SAMI), 2002.

Lyman A. Ripperton Award, Air & Waste Management Association, 2001.

Selected by U.S. Secretary of Agriculture to serve on the U.S. Agricultural Air Quality Task Force, 2001-2008.

North Carolina Environmental Defense, "Certificate of Appreciation," 2002.

Delegation Leader, U.S. Department of State, Trends in Environmental Improvement Science and Technology Delegation to France, 2001.

Fellow, Air & Waste Management Association, 1999.

Frank A. Chambers Award, Air & Waste Management Association, 1998.

Invited to testify to the General Assembly of North Carolina, 2000.

Inducted in NC State University's Academy of Outstanding Faculty Engaged in Extension, 2000.

Member, North Carolina Delegation, the Netherlands, 2000.

North Carolina State Scholar, the North Carolina Progress Board, 1999.

Invited to testify to America's Clean Water Foundation, Washington, DC, October 1997.

Program Scientist, US EPA and NSF Project "NOVA," 1995-1998.
 State of North Carolina Appointee to the Southern Appalachian Mountain Initiative (SAMI) Technical Oversight Committee, 1993-present.
 Certified Qualified Environmental Professional (#06930006), 1993-present.
 Member, Editorial Board, *Atmospheres*, 2012-Present
 Member, Editorial Board, *Journal of Atmospheric and Climate Science*, 2011-Present
 Member, Editorial Board, *Journal of Marine Science: Research & Dev.*, 2010-Present
 Member, Editorial Board, *International Journal of Atmospheric Pollution Research*, 2009-Present
 Associate Editor, *Physical Review & Research International*, 2011-Present
 Associate Editor, *The Open Environmental & Biological Monitoring Journal*, 2008-Present
 Associate Editor, *Scientific Journals International*, 2008 to Present
 Reader Advisory Panel, *Nature*, 2008-Present.
 Associate Editor, *International Journal of Air Quality, Atmosphere, and Health*, 2007-Present
 Associate Editor, *International Journal of Applied Environmental Sci.*, 2004-Present
 Member, Editorial Board, *Environmental Pollution* (Elsevier-Science), 2000-2003.
 Member, Editorial Review Board, *Environmental Manager*, 1995-2001.
 Member, Editorial Review Board, *The Journal of the Air & Waste Management Association (JA&WMA)*, 1993-2001.
 Member Editorial Board, *Chemosphere* (Pergamon Press), 1992-2004.
 Outstanding Extension Service Award, North Carolina State University, 1991-1992.
 Faculty Research and Professional Development Award, North Carolina State University, 1991.
 Mission Scientist, Southern Oxidants Research Program on Ozone Non-Attainment, 1991.
 Managerial Award in Recognition of Distinctive and Outstanding Accomplishments, General Electric Company, 1986.
 Distinguished Service Award, Air Pollution Control Association, Pittsburgh, 1984.
 Noryl Division Proprietary Innovation Award, General Electric Company, 1983.
 Letters of Commendation, Northrop Services, Inc., NC, 1977 and 1979.
 "One Thousand Great Americans", International Biographical Centre, Cambridge, England, 2001.
 Who's Who in the East.
 Men and Women of Distinction of the Dictionary of International Biography.
 Who's Who in Technology Today.
 American Men and Women of Science.

PROFESSIONAL ACTIVITIES

Member, American Institute of Chemical Engineers
 Member, Air and Waste Management Association
 Member, American Geophysical Union
 AIChE Editor Northeast New York Section, 1981-1983
 Air Pollution Control Association Secretary, Interaction with Total Environment Technical Committee, 1987-1989.

Manuscript Reviewer: Atmospheric Environment; Tellus; Journal of the Air Pollution Control Association; Environmental Science & Technology; Journal of Water, Air and Soil Pollution;

Journal of Geophysical Research; International Journal of Environment and Pollution; Journal of the Air and Waste Management Association; Chemosphere; Global Biogeochemical Cycles; Israel Journal of Chemistry; Transactions: Regional Photochemical Measurement, and Modeling Studies; Journal of Environmental Quality; Environmental Defense Fund; Ecology, Ecological Monographs, and Ecological Applications; Environmental Pollution; US Environmental Protection Agency; Global Change Biology; Global Biogeochemical Cycles; Phytos; Journal of Applied Meteorology; Atmosphere; Environmental Health; Environmental Technology and Innovation; Aerosol and Air Quality Research; Nature Communications.

Book Referee: Academic Press, McGraw-Hill, Oxford University Press, and Elsevier.

Guest Editor: Atmospheric Environment, Special Section, "Atmospheric Nitrogen Compounds: Emissions, Transport, Transformation, Deposition, and Assessment," 2001.

Atmospheric Environment, Special Issue, "Agricultural Air Quality: State of the Science (AAQ-2006)," 2008.

Journal of the Air and Waste Management Association, "Agricultural Air Quality: State of the Science," 2008.

Journal of Environmental Quality "Agricultural Air Quality: State of the Science," 2008.

Advisory Panel: Nature, 2008-2010.

Research Grant Reviewer: National Science Foundation; American Institute of Biological Sciences; National Aeronautics and Space Administration; U.S. Department of Agriculture; U.S. Department of State; U.S. Department of Energy; National Oceanic and Atmospheric Administration; Natural Environmental Research Council, UK; U.S. Environmental Protection Agency; The Israel Science Foundation; Chesapeake Bay Air Subcommittee; NC Water Resources Research Institute; United Nations Intergovernmental Panel on Climate Change; U.S. Civilian Research and Development Foundation for the Independent States of the Former Soviet Union; U.S. Department of Energy; The Croucher Foundation, Hong Kong; Nevada System of Higher Education; University of Illinois at Chicago; Università degli Studi della Basilicata, Italy; Research Corporation for Science Advancement; Office of Education, Archimedes III, Greece; Research Program Thalys, Greece; NWO Council for Earth and Life Sciences, the Netherlands; Fund for Scientific Research (FNRS), Brussels, Belgium; and Kuwait Foundation for the Advancement of Sciences, Kuwait.

Consultant: U.S. Environmental Protection Agency; U.S. Department of State; DuPont Company; The United Nations Environment Program; Indian Institute of Technology, Kanpur; Engineering Science, Inc.; American Institute of Biological Sciences; ABB Environmental Services, Inc.; Research and Evaluation Associates, Inc.; Patterson, Harkavy, Lawrence, Van Noppen and Okun, Attorneys at Law; Blanchard, Twiggs, Abrams and Strickland P.A.; Johnston, Zabor & Associates, Inc.; Minnesota Pollution Control Agency; North Carolina Department of Environment and Natural Resources; Radian Corporation; EC/R Inc; Duke University; Purdue University; Eastern Research Group, Inc.; Sierra Club; Center on Race, Poverty, and the Environment; Nelson Mullins Riley & Scarborough LLP; Speer Law Firm; Health Canada; and Wallace and Graham, P.A.

CURRENT FIELDS OF INTEREST

Environment, Air Quality, and Climate: Emission, transport, transformation, and fate of pollutants; agricultural air quality; climate change; biogeochemical cycling of pollutants; measurement and modeling of biogenic emissions of trace gases; photochemical oxidants and gas-to-particle conversion; biospheric-atmospheric interactions; bioenergy; aqueous waste purification; bioenvironmental engineering; and pollutant monitoring and control.

NEWS COVERAGE

Research has been featured on: CNN; ABC; CBS; NBC; National Public Radio; Public Broadcasting Service; Associated Press; The New York Times; The Raleigh News&Observer, The Times of India; Bloomberg News; Environmental Manager; Fortune Magazine; Field Productions, LLC, and The Wire (India).

COMMITTEES

Member, The Washington Post Advisory Panel.

Member, UNC GA- India Summit Steering Committee, 2013-present.

Member, Air and Waste Management Association Publication Committee, 2010-2013.

Member, Reader Advisory Panel of the International Journal Nature, 2008-2010.

Member, Isle Royale National Park Research Panel, 2008-2009.

Chair, Steering Committee, Workshop on Agricultural Air Quality: State of the Science, 2005-2007.

Member, North Carolina State University India Advisory Group Committee, 2007-2010.

Member, Triangle Tomorrow's Triangle Region Air Quality Coalition, 2005-present.

Member, US Department of Agriculture, Task Force on Agricultural Air Quality, Subcommittees on Emissions, Confined Animal Feeding Operations, and Research, 2000-2006.

Member, Battelle Technical Council, 2001-2003.

Chair, Oak Ridge National Laboratory, NCSU Environmental Sciences Committee, 2001.

Member, Area, Fugitive and Natural Sources Committee, Air & Waste Management Association, 2001-Present.

NASA Tech Brief Reader Advisory Panel, 2000-Present.

Member, US EPA's Accessing the Consequences of Global Change for Air Quality Peer Review Panel, 2002.

Chair, North Carolina State University Standing Committee O. Max Gardner Award, 2000-2001.

Member, Technical Committee, American Institute of Hydrology International Conference, 2000.

Member, Advisory Team, International Workshop on Atmospheric Transport and Air-Surface Exchange of Environmental Contaminants in North America, 2000.

Member, Organizing Committee, International Workshop on Future Directions in Air Quality Research, 2000-2001.

Member, North Carolina Nutrient Efficiency Rule Advisory Group, 2000.

Member, US EPA's STAR Fellowships Peer Review Panel, 2000.

Member, Water Resources Research Institute of The University of North Carolina Technical Committee, 1998-2002.

Member, North Carolina State University Standing Committee on O. Max Gardner Award, 1998-2001.

Member, Board of Directors, State Employees Credit Union, NCSU Advisory Board, 1998-2002.

Member, North Carolina State University, Environmental Technology Curriculum, 1999.

Member, US EPA's Exploratory Engineering Peer Review Panel, 1999.

Member, US EPA's Air Pollution Chemistry and Physics Peer Review Panel, 1998.

Chair, Scientific Advisory Committee, North Carolina Workshop on Atmospheric Nitrogen Compounds, 1997.

Member, U.S. EPA's Tropospheric Ozone and Fine Particulates Peer Review Panel, 1997.

Science Team Leader, State of North Carolina Department of Environment and Natural Resources Program, "Atmospheric Nitrogen Compounds," 1996-Present.

North Carolina State University Merit Awards Program, 1996-Present.

Member, Atmospheric Nitrogen Emissions and Depositions Group, NC Department of Environmental, Health, and Natural Resources, 1996-Present.

Member, Ozone Transport Assessment Group (OTAG), Air Quality Analysis, 1996-1998.

Program Advisory Committee, International Conference on Atmospheric Ammonia, Oxford, England, 1995.

Science-Team Member, North American Research Strategy on Tropospheric Ozone (NARSTO), 1995-Present.
 Steering Committee, "SCI-LINK/GLOBE-NET" Programs, 1995.
 Institute of Professional Environmental Practice, Qualified Environmental Professional Exam Advisory Committee, 1994-Present.
 Scientific and Technical Advisory Committee, Chesapeake Bay Program, 1994.
 NCSU Outreach and Extension Strategic Planning, 1994.
 Qualified Environmental Professional, IPEP, Chair, Examination Panels, 1993-Present.
 Technical Program Committee, International Symposium on Measurement of Toxic and Related Air Pollutants, 1993.
 Technical Program Committee, International Conference on Regional Photochemical Measurement & Modeling Studies, 1993.
 Publications Committee, Air and Waste Management Association, 1992-1995.
 Member, Technical Advisory Committee, N.C. Environmental Defense Fund, 1992-1994.
 Urban Airshed Model Technical Committee, State of North Carolina, 1992-1994.
 International Hydrocarbon Intercomparison (IHIC) Committee, 1991-2000.
 Forest Protection, North Carolina Agricultural Research Service, 1991.
 NASA panel for the selection of NASA Specialized Center for Research and Training, 1990.
 Site Director, Southern Oxidants Study, NCSU Site SONIA, 1991-1995.
 U.S. Environmental Protection Agency Management Assistance Review, 1988.
 Southern Oxidant Study Consortium, 1988-Present.
 The Southeastern Regional Oxidant Network Steering Committee, 1988-Present.
 The Southern Oxidants Research Program on Ozone Non-Attainment Executive Committee, 1990-1993.
 The Air and Waste Management Association Committee on Global Environmental Management, 1989-1991.
 NC Gaston County Quality Natural Resources Committee, 1989-1991.
 MEAS Electronics Technician Search Committee, Chairman, 1988.
 MEAS Technical Services Committee, 1988-1990.
 Chairman, MEAS Outreach Committee, 1990-1993, 1999-2001.
 MEAS Seminar Committee, 1993-1994.
 MEAS Laboratory Safety Committee, 1993-Present.
 MEAS Graduate Course Action Committee, 2000-Present.
 MEAS Space Committee, 2001-2002.
 MEAS Air Quality Faculty Search Committee, 2002-2003.
 Chair, MEAS Physical Meteorology Faculty Search Committee, 2005-2006.
 College of Physical and Mathematical Sciences, PAMS, Reappointment, Promotion, and Tenure Advisory Committee, 2006-2008.

POSTDOCTORAL FELLOWS and VISITING SCIENTISTS SUPERVISED

1. Dr. Takashi Ibusuki, 1979-1980, National Research Institute for Pollution, Japan.
2. Dr. Chandana Senaratne, 1989-1990, North Carolina State University, USA.
3. Dr. Deug-Soo Kim, 1995-1996, Kunsan National University, Korea.
4. Dr. Ilie Fishtik, 1997 (Summer), The Academy of Sciences of Moldova, Moldova.
5. Dr. Mahmoud El-Sharkaway, February-July 1999. Fulbright Senior Scholar, Egypt.
6. Dr. Deng-Soo Kim, 2002-2004, Kunsan National University, Korea.
7. Dr. Jessica Blunden, 2006-2008, North Carolina State University, USA.
8. Mr. Guillaume Grandjean, National Institute of Agronomic Sciences, France.

GRADUATE STUDENTS SUPERVISED

Ph.D. Completed

1. Candis S. Claiborn (Ph.D., Fall 1991)
"Atmospheric-Biospheric Interactions of Ambient Hydrogen Peroxide: Climatology at Mt. Mitchell, NC, and Transport into Needles of Red Spruce."
Professor and Dean, Washington State University, Pullman, WA.
2. Deug-Soo Kim (Ph.D., Summer 1993)
"Southern Oxidants Study: Southeast Oxidant and Nitrogen Intensive Analysis (SOS:SONIA)."
Professor and Head, Department of Environmental Engineering, Kunsan National University, Korea.
3. Mita Das (Ph.D., Fall 1996)
"Trends, Photochemistry, and Analysis of Volatile Organic Compounds in the Lower Troposphere of the Southeast United States."
4. Yongxian Li (Ph.D., Summer 1999)
"Transport and Deposition of Nitrogen Oxides and Ozone in the Atmospheric Surface Layer."
Scientist, NOAA, Baltimore, MD.
5. Paul A. Roelle (Ph.D., Summer 2001)
"Oxidized and Reduced Biogenic Nitrogen Compound Emissions into the Rural Troposphere: Characterization and Modeling."
Col, U.S. Air Force, Chief Operational Climatology, Asheville, NC.
6. Daiwen Kang (Ph.D., Fall 2001)
"Measurement, Modeling, and Analysis of Nonmethane Hydrocarbons and Ozone in the Southeast United States National Parks."
NOAA/US EPA, Scientist, RTP, NC.
7. Bok-Haeng Baek (Ph.D., Spring, 2002)

- “Measurement, Analysis, and Modeling of Gas-to-Particle Conversion between Ammonia, Acid Gases, and Fine Particles”.
Texas A & M University, Assistant Research Scientist, Amarillo, TX.
8. Sharon B. Phillips (Ph.D. Summer 2003)
“Measurements, Modeling, and Analysis of Fluxes of Nitrogen Compounds.”
Physical Scientist, US EPA, Research Triangle Park, NC.
 9. Quansong Tong (Ph.D., Summer 2003)
“Measurement, Modeling and Analysis of Ozone and its Key Precursors in the Southeast United States National Parks.”
Air Resources Laboratory, NOAA, Silver Spring, MD.
 10. Jessica Blunden (Ph.D., Summer 2006)
“Measurement, Analysis, and modeling of Hydrogen Sulfide emissions from a swine facility in North Carolina.”
STG Inc., Asheville, NC.
 11. Kanwardeep S. Bajwa (Ph.D., Summer 2006)
“Measurements and Modeling of Emissions, Dispersion and Dry Deposition of Ammonia from swine facilities.”
Air Quality Specialist, Jacques Whitford AXYS Ltd, Calgary, Canada.
 12. Ian C. Rumsey (Ph.D., Spring 2010)
“Characterizing Reduced Sulfur Compounds and Non-Methane Volatile Organic Compounds Emissions from a Swine Concentrated Animal Feeding Operation.”
Postdoctoral Researcher, U.S. Environmental Protection Agency, RTP, NC.
 13. Val Garcia (Ph.D., Fall 2010)
“Examination of Inter-relationships among Atmospheric Transport Patterns, Ozone Concentrations, and Human Health Endpoints in New York State.”
Branch Chief, U.S. Environmental Protection Agency, RTP, NC.
 14. Anjum Rasheed (Ph.D., Fall 2013)
“Dynamic Analysis and Assessment of Ambient Air Quality of Four Major Cities of Pakistan.”
 15. Priya R. Pillai (Ph.D., Fall 2016)
“Nitrous Oxide Emissions from Biofuel Crops and Atmospheric Aerosols: Associations with Air Quality and Regional Climate.”
Scientist, NOAA at I.M. Systems Group, College Park, MD.

M.S. Completed

1. Anuradha B. Murthy (MS, Fall 1990)
"Deposition and Interaction of Nitrogen Containing Pollutants to a High Elevation Forest Canopy."
2. Deug-Soo Kim (MS, Fall 1990)
"Temporal Variability in Cloud Water Chemistry at Mt. Mitchell as Revealed by the Cloud and Rain Acidity/Conductivity (CRAC) Real-Time Automated Sampler."
3. Zheng Li (MS, Fall 1990)
"Regional and Comparative Analysis of Cloud Chemistry, Chemical and Physical Climatology at High Elevations in the Eastern United States."
4. Andrea A. Adams (MS, Fall 1992)
"An Observational-based Analysis of Ozone Trends and Production in North Carolina."
5. Gary T. Yoder (MS, Spring 1993)
"Characterization of Urban and Rural Ozone in the Southeastern United States."
6. Benjamin E. Hartsell (MS, Spring 1993)
"Characterization of Peroxyacetyl Nitrate (PAN) in the Rural and Urban Southeast United States."
7. Mita Das (MS, Summer 1993)
"Physico-chemical Processes Regulating the Formation of Gaseous Hydrogen Peroxide in the Southeastern United States."
8. Benny D. Holbrook (MS, Summer 1994)
"Characterization and Graphical Visualization of Fluxes of Oxides of Nitrogen from Agricultural Soils in North Carolina."
9. James C. Ulman (MS, Summer 1994)
"Impact of Air Mass History on the Chemical, Microphysical, and Radiative Properties of Clouds at Mount Mitchell, North Carolina."
10. Jay H. Lawrimore (MS, Summer 1994)
"Measurement and Analysis of the Vertical Distribution and Emissions of Nonmethane Hydrocarbons in Urban North Carolina for Ozone Control."
11. Lee J. Sullivan (MS, Summer 1995)
"Biogenic Nitric Oxide Emissions: Trends, Seasonal Variations, and Interpretations."
12. Thomas C. Moore (MS, Summer 1995)
"Vertical Distribution of Oxides of Nitrogen in the Semi-Urban Planetary Boundary Layer: Mixing Ratios, Transport, and Sources."

13. Fred Stratton de Pollok (MS, Spring 1996)
"Mutagenic and Gas Chromatographic Analysis of Raleigh Volatile Organic Compounds in Air Samples at Three Different Elevations Before, During and After Hurricane Gordon."
14. Lisa M. Hagerman (MS, Summer 1996)
"Regional Analysis of Non-Methane Hydrocarbons and Meteorology of the Rural Southeast United States."
15. James R. O'Connor (MS, Summer 1996)
"A Climatology of Regional Ozone: Meteorological Effects on Ozone Exceedences in the Southeast United States."
16. Paul A. Roelle (MS, Summer 1996)
"Chemically Reactive Nitrogen Trace Species in the Planetary Boundary Layer."
17. Regi G. Oommen (MS, Summer 1996)
"Boundary Layer Ozone Variations in Central North Carolina."
18. James E. Rickman (MS, Summer 1997)
"Three-Dimensional Visualization of Ozone Process Data."
19. Jeffrey S. Brittig (MS, Summer 1997)
"Ozone and Other Air Quality Related Variables Affecting Visibility in the Southeast United States."
20. John T. Walker, Jr. (MS, Summer 1998)
"Atmospheric Transport and Wet Deposition of Ammonium in North Carolina."
21. Jatinderpaul S. Chauhan (M.S., Summer 1999)
"Characterization of Ammonia Emissions from Swine Waste Storage and Treatment Lagoons."
22. Bryan J. Bunton (M.S., Summer 1999)
"Measurements and Analysis of Atmospheric Ammonia Emissions from Anaerobic Lagoons."
23. Brahm P. Malik (MS, Fall 1999)
"Coupled Transport and Chemical Reaction Model for Ammonia Emission at Waste Treatment Lagoon–Atmosphere Interface."
24. Ronald B. McCulloch (MS, Fall 1999)
"Estimating Ammonia Emissions from a Swine Production Facility in North Carolina using an Inverted Gaussian Plume Model."
25. Dena R. Nelson (MS, Summer 2000)
"Analysis of Ammonia Emissions from Agriculture and Ammonium Concentrations in the Southeast United States."

26. Nitin Agrawal (MS, Summer 2000)
“Estimating Ammonia Emissions and Fine Particulate Matter from Remotely Sensed Data in North Carolina and their Regional Coupling.”
27. Heather Arkinson (MS, Spring 2003)
“Measurement, Modeling, and Analysis of Ammonia Flux from Hog Waste Treatment Lagoons.”
28. Jessica Blunden (MS, Fall 2003)
“Characterization of Non-Methane Volatile Organic compounds at Swine Facilities in Eastern North Carolina.”
29. Hilawe Semunegus (MS, Fall 2003)
“Comparative Assessment of Ammonia Emissions from Potential Environmentally Superior Technologies for Swine Facilities.”
30. Binyu Wang (MS, Fall 2003)
“Analysis and Modeling of Fine Particulate Matter (PM_{fine}) in the Southeast United States.”
31. Barry Peterson (MS, Spring 2004)
“An Experimental Study of the Vertical Eddy Diffusivity and Dry Deposition of Ammonia on a Natural Grassy Surface.”
32. Ian Rumsey (MS, Summer 2004)
“An Assessment of Ammonia Emissions from Water-holding Structures for Hog Farms: Lagoon and Spray Technology and Potential Environmentally Superior Technologies.”
33. Stephen Goetz (MS, Fall 2005)
“Measurement, Analysis, and modeling of fine Particulate Matter in Eastern North Carolina.”
34. Christopher Occhipinti (MS, Fall 2006)
“Nitrate Isotopic Composition in Rainfall and Fine Particulate Matter: Back Trajectory, Meteorology, and Source - Receptor Relationship Analysis.”
35. Stephen Konarik (MS, Fall 2006)
“Trends in Agricultural Ammonia Emissions and Ammonium Concentrations in Precipitation over the Southeast and Midwest United States.”
36. Srinath Krishnan (MS, Summer 2007)
"Modeling study of Dry Deposition of Ammonia in North Carolina."
37. Kristen James (MS, Summer 2008)
“The Development of US Ammonia Emission Factors for Use in Process Based Modeling.”

38. Leverett Garing (MS, Summer 2014).

39. Joshua Tobias (MS, Spring 2015).

40. Dennis Mikel (MS, Spring 2016)

“Measurement and Analysis of Polycyclic Aromatic hydrocarbons (PAHs) near a major Roadway”.

In Progress

Mr. William Battye	Ph.D.
Ms. Casey Bray	Ph.D.
Mr. Michael Pirhalla	Ph.D.
Ms. Pornpan Uttamang	Ph.D.
Mr. Jordan Baker	M.S.
Ms. Qi Li	M.S.
Ms. Rebecca Wiegand	M.S.

TEACHING EXPERIENCE

Spring 1988	MEA 593N	Atmospheric Chemistry	(shared)
Spring 1988	MEA 556	Air Pollution Meteorology	(shared)
Spring 1989	MEA 593B	Atmospheric Chemistry	(shared)
Spring 1989	MEA 556	Air Pollution Meteorology	(shared)
Spring 1990	MEA 556	Air Pollution Meteorology	(shared)
Spring 1991	MEA 593G	Atmospheric Chemistry	
Spring 1991	MEA 593S	Atmospheric Photochemical Oxidants	
Spring 1992	MEA 593G	Atmospheric Chemistry	
Fall 1992	CE 497Q/MEA 456	Air Quality	
Spring 1993	U.S. EPA APTI Course SI:401	Introduction to the Monitoring of Hazardous Air Pollutants	
Fall 1993	MEA 130	Introduction to Weather and Climate	
Fall 1994	MEA 593U	Advanced Air Quality	
Spring 1996	MEA 593U	Advanced Air Quality	
Spring 1997	MEA 593U	Advanced Air Quality	
Spring 1998	MEA 593U	Advanced Air Quality	
Spring 1998	MEA 493	Special Study—Air Pollution	
Spring 1999	MEA 793B	Advanced Air Quality	
Spring 2000	MEA 793B	Advanced Air Quality	
Spring 2000	CH 499	Undergraduate Research in Chemistry	
Spring 2000	U.S. EPA APTI Course T-020	Nitrogen Compounds and Air Quality in the Troposphere (Air Pollution Distance Learning Network Telecast and Simulcast)	
Fall 2000	MEA 130	Introduction to Weather and Climate	
Spring 2001	MEA 793B	Advanced Air Quality	
Fall 2001	MEA 130	Introduction to Weather and Climate	
Spring 2002	MEA 779	Advanced Air Quality	
Spring 2002	ET/MEA 320	Fundamentals of Air Pollution	
Fall 2002	MEA 130	Introduction to Weather and Climate	
Spring 2003	MEA 779	Advanced Air Quality	
Spring 2003	ET/MEA 320	Fundamentals of Air Pollution	
Fall 2003	MEA 130	Introduction to Weather and Climate	
Spring 2004	ET/MEA 320	Fundamentals of Air Pollution	
Fall 2004	MEA 130	Introduction to Weather and Climate	
Spring 2005	ET/MEA 320	Fundamentals of Air Pollution	
Fall 2005	MEA 130	Introduction to Weather and Climate	
Spring 2006	ET/MEA 320	Fundamentals of Air Pollution	
Spring 2007	ET/MEA 320	Fundamentals of Air Pollution	
Spring 2008	ET/MEA 320	Fundamentals of Air Pollution	
Spring 2009	ET/MEA 320	Fundamentals of Air Pollution	
Spring 2009	MEA 140	Natural Hazards	
Fall 2009	MEA 311	The Global Atmospheres	

Spring 2010	ET/MEA 320	Fundamentals of Air Pollution
Spring 2010	MEA 130	Introduction to Weather and Climate
Fall 2010	MEA 311	The Global Atmospheres
Spring 2011	ET/MEA320	Fundamentals of Air Pollution
Summer 2011	MEA 130	Introduction to Weather and Climate
Fall 2011	MEA 311	The Global Atmospheres
Spring 2012	ET/MEA 320	Fundamentals of Air Pollution
Fall 2012	MEA 498	Internship
Spring 2013	ET/MEA 320	Fundamentals of Air Pollution
Spring 2013	MEA 498	Internship
Spring 2014	ET/MEA 320	Fundamentals of Air Pollution
Fall 2014	MEA 321	Fundamentals of Air Quality and Climate Change
Spring 2015	ET/MEA 320	Fundamentals of Air Pollution
Spring 2016	ET/MEA 320	Fundamentals of Air Pollution
Spring 2016	MEA 495	Junior Science Seminar
Fall 2016	MEA 321	Fundamentals of Air Quality and Climate Change
Fall 2016	ES 200	Climate Change and Sustainability
Spring 2017	ET/MEA 320	Fundamentals of Air Pollution
Fall 2017	MEA 321	Fundamentals of Air Quality and Climate Change

Short Courses

Fall 1997	Short Course	Volatile Hydrocarbons in the Atmosphere
Fall 1998	Short Course	Nitrogen Compounds in the Troposphere
Spring 1999	Short Course	Nitrogen Compounds In the Troposphere
Fall 1999	Short Course	Nitrogen Compounds in the Troposphere
Summer 2000	Short Course	Nitrogen Compounds in the Troposphere (Center for Science and Environment, India)
Fall 2000	Short Course	The Atmospheric Aerosol
Spring 2001	Short Course	Volatile Hydrocarbons in the Atmosphere
Spring 2001	Short Course	Nitrogen Compounds in the Troposphere
Spring 2001	Short Course	The Atmospheric Aerosol
Spring 2002	Short Course	Fundamentals of Meteorology
Fall 2001	Short Course	Fundamentals of Meteorology
Spring 2002	Short Course	Fundamentals of Meteorology
Fall 2002	Short Course	Nitrogen Compounds in the Troposphere
Fall 2002	Short Course	Aerosols in the Atmosphere
Spring 2003	Short Course	Fundamentals of Meteorology
Spring 2003	Short Course	Volatile Hydrocarbon in the Atmosphere
Fall 2003	Short Course	Aerosols in the Atmosphere
Fall 2003	Short Course	Fundamentals of Meteorology
Spring 2004	Short Course	Nitrogen Compounds in the Troposphere
Fall 2004	Short Course	Aerosols in the Atmosphere
Spring 2005	Short Course	Nitrogen Compounds in the Troposphere
Spring 2005	Short Course	Fundamentals of Meteorology
Fall 2005	Short Course	Volatile Hydrocarbons in the Atmosphere
Fall 2005	Short Course	Aerosols in the Atmosphere

Fall 2005	Short Course AWMA AIR - 146	Nitrogen Compounds in the Troposphere: Emissions and Fate associated with Animal Agriculture
Fall 2006	Short Course	Volatile Hydrocarbons in the Atmosphere
Fall 2006	Short Course	Aerosols in the Atmosphere
Spring 2007	Short Course	Fundamentals of Meteorology
Spring 2007	Short Course	Nitrogen Compounds in the troposphere
Fall 2007	Short Course	Volatile Hydrocarbons in the Atmosphere
Spring 2008	Short Course	Aerosols in the Atmosphere
Spring 2008	Short Course	Nitrogen Compounds in the Troposphere
Spring 2008	Short Course	Fundamentals of Meteorology
Summer 2012	Short Course NEIGAE, China	Nitrogen Compounds in the Troposphere
Summer 2012	Short Course WESTAR	Nitrogen Compounds in the Troposphere
Fall 2015	EEM 606 Course IIT/Kanpur, India	Air Pollution and its Control
Fall 2015	NRE 179 Course TERI University, India	Fate, Transport, and Transformation of Atmospheric Pollutants

RESEARCH GRANTS AND CONTRACTS AWARDED
SINCE AT NORTH CAROLINA STATE UNIVERSITY

1. Principal Investigator
U.S. Environmental Protection Agency, MCCP Contract No. ESRL-CA-01
"Mountain Cloud Chemistry/Forest Exposure Study"
February 1, 1987 - January 31, 1988 -- \$265,331
February 1, 1988 - January 31, 1989 -- \$272,998
February 1, 1989 - January 31, 1990 -- \$270,000
February 1, 1990 - December 31, 1990 -- \$45,000
2. Co-Principal Investigator
U.S. Environmental Protection Agency, Grant No. CR812444-02-0
"Acid Deposition Monitoring at Mount Mitchell, North Carolina"
October 1, 1987 - September 30, 1988 -- \$127,138
3. Principal Investigator
U.S. Environmental Protection Agency, Grant No. CR-814612-01-0
"Determination of Flow Fields Associated with Cloud Occurrence on Mt. Mitchell, North Carolina"
August 1, 1987 - July 31, 1988 -- \$10,000
4. Principal Investigator
U.S. Environmental Protection Agency, Grant No. CR-815289-01-0
"Dynamic Chemical Characterization of Montane Clouds"
August 1, 1988 - July 31, 1991 -- \$70,000
5. Principal Investigator
Duke Power Company, Trust No. ENV-0101
"The Southeastern Regional Oxidant Network"
January 19, 1989 - December 31, 1989 -- \$15,000
6. Principal Investigator
U.S. Environmental Protection Agency, Grant No. JG/02.129.009.89.
"Proposal for the Development and Planning of A University Based Southern Oxidant Study - Development of C14 Method for Estimating the Biogenic-To-Anthropogenic VOC Ratio in Urban Plumes"
May 1, 1989 - April 30, 1990 -- \$72,000
7. Principal Investigator
Gaston County, Grant No. 90-0483
"Natural Resource Quality in Gaston County: Phase I Characterization of Air"
November 1989 - June 1990 -- \$30,000
8. Principal Investigator
USDA Forest Service, Reference No. 29-586
"Ozone Concentration and Meteorological Measurements at Mount Mitchell Research Observatory During the 1990 Growing Season"

May 1990 - May 1991 -- \$15,000

9. Principal Investigator
Gaston County Quality Natural Resources Committee, Grant No. 90-0483
"Natural Resources Quality in Gaston County: Phase 2--Air Quality"
January 1991-December 1991 -- \$5,000
10. Principal Investigator
Georgia Institute of Technology, G35-630-55
"The Pilot-Study Year of the Southern Oxidants Research Program (SORP) of the Southern Oxidants Study (SOS)"
June 1990-April 1991 -- \$29,557
11. Principal Investigator
Georgia Institute of Technology, Subcontract G 35-630-S7
"Southeast Oxidant Study -- SERON Pilot Study"
April 1990-September 1991 -- \$3,500.00
12. Principal Investigator
University Corporation for Atmospheric Research, Subcontract UCAR S9153
"The Southern Oxidants Research Programs on Ozone Non-Attainment (SORP-ONA) a Program of the Southern Oxidants Study"
April 1, 1991-December 31, 1992 --\$73,000
January 1, 1992-June 30, 1993 -- \$40,000
13. Principal Investigator
NOAA, Southeast Regional Climate Center, Grant No. NA89AA-D-CP037
"Characterization of Ozone Climatology in the Southeastern United States and Climate Change"
July 1, 1991-September 30, 1993 -- \$30,000
14. Principal Investigator
University Corporation for Atmospheric Research, Subcontract UCAR S9192
"SERON: The Southeastern Regional Oxidant Network"
September 1, 1991-December 31, 1992 -- \$147,746
January 1, 1992-June 30, 1993 -- \$174,525
15. Principal Investigator
College of Forest Resources, Subcontract NCSU 69-0001
"Southern Oxidant Study: Southeast Oxidant and Nitrogen Intensive Analysis"
January 1, 1993-December 31, 1994 -- \$125,000
16. Principal Investigator
North Carolina Division of Environmental Management, Contract No. J-3056
"Meteorological Measurements for Oxidant Modeling in the Piedmont Region"
June 1, 1993-May 31, 1994 -- \$43,360
June 1, 1994-May 31, 1996 -- \$42,026

17. Principal Investigator
NC Department of Environment, Health and Natural Resources, Contract No. J-4004
"Vertical Sampling and Analysis of Speciated Hydrocarbons and Carbonyls in Urban North Carolina for Ozone Control"
July 1, 1993-December 31, 1994 -- \$73,413
January 1, 1995-December 31, 1995 -- \$25,345
18. Co-Principal Investigator
U.S. Environmental Protection Agency, Cooperative Agreement No. CR817766-02-1
"Southern Oxidant Research Program on Emissions and Effects"
January 1, 1993-December 31, 1993 -- \$325,015
January 1, 1994-December 31, 1994 -- \$1,205,000
19. Principal Investigator
U.S. Environmental Protection Agency, Cooperative Agreement No. CR822058-01 0
"Characterization of Emissions of Nitrogen Oxides from Soils of Southeast U.S."
October 1, 1993-September 30, 1996 -- \$465,467
20. Principal Investigator
Georgia Institute of Technology, Subcontract No. G-35-693-S4
"Southern Oxidant Study: Southeast Oxidant and Nitrogen Intensive Analysis"
January 1, 1994-December 31, 1994 -- \$40,000
21. Principal Investigator
Georgia Institute of Technology, Subcontract No. G-35-693-S4
"Southern Oxidant Study: Ozone Non-Attainment Atlanta Intensive"
January 1, 1994-December 31, 1994 -- \$30,000
22. Principal Investigator
Georgia Institute of Technology, Subcontract No. G-35-X52-S1.
"Field Measurements During Southern Oxidant Study: Ozone Non Attainment Nashville, TN Intensive"
January 1, 1995-December 31, 1995 -- \$60,000
23. Principal Investigator
National Science Foundation, Grant No. ATM-9420610.
"NO_x Emissions from Agricultural Soils: Intercomparison of Micrometeorological and Dynamic Soil Chamber Techniques"
July 1, 1995-June 30, 1998 -- \$40,554
July 1, 1998-June 30, 2000 -- \$15,000
24. Principal Investigator and Program Scientist
U.S. Environmental Protection Agency, Cooperative Agreement No. CR825426-01.
"Natural emissions of Oxidant precursors: Validation of techniques and Assessment, (Project NOVA)"
July 1, 1995-June 30, 1997 -- \$90,000
25. Principal Investigator

- NC Department of Environment, Health and Natural Resources Contract No. J-6021.
"Trends, Seasonal Variations, and Analysis of Ozone in Raleigh, North Carolina"
October 1, 1995-September 30, 1997 -- \$35,813
26. Principal Investigator
Water Resources Research Institute, Contract No. EA7003.
"Characterization of Ammonia Emissions from Animal and Poultry Operations in North Carolina"
July 1, 1996-June 30, 1999 -- \$361,464
27. Principal Investigator
North Carolina Department of Environment, Health, and Natural Resources via the North Carolina Agricultural Research Service, Contract No. NC05849.
"North Carolina Climatology Study: Nitrogen Compounds in the Atmosphere."
January 1, 1997-December 31, 1997 -- \$5,000
28. Principal Investigator
North Carolina Department of Environment, Health, and Natural Resources via the North Carolina Agricultural Research Service, Contract No. NC05849.
Workshop "Atmospheric Nitrogen Compounds: Emissions, Transport, Transformation, Deposition and Assessment."
January 1, 1997-December 31, 1998 -- \$20,000
29. Principal Investigator
NC Department of Environment, Health and Natural Resources, Contract No. EA8001.
"The Intergovernmental Personnel Act. Technical Air Quality Services Contract."
June 1, 1997-June 30, 2000 -- \$138,750
30. Principal Investigator
NC Department of Environment and Natural Resources, Contract No. EA 7003.
International Workshop: Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition, and Assessment."
March 1, 1999-June 30, 1999 -- \$30,000
31. Principal Investigator
Mid-Atlantic Regional Air Management Association, FAS Account No. 5-33110.
State of Knowledge Workshop: "Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition, and Assessment."
October 1, 1999-September 30, 2000 -- \$5,000
32. Principal Investigator
NC Water Resources Research Institute
Subcontract No. 63-0145.
"Characterization of Ammonia Emissions from Animal and Poultry Operations in North Carolina."
March 1, 1999-June 30, 1999 -- \$5,000
33. Principal Investigator

North Carolina Department of Environment and Natural Resources
Contract No. EA 8001.
“Annular Denuder System (ADS) Gaseous and Aerosol Data Reduction and Analysis.”
July 1, 1999-June 30, 2000 -- \$20,000

34. Principal Investigator
National Park Service, Cooperative Agreement 4000-7-9003.
"Analysis of Ambient Air Quality in National Parks."
July 1, 1997-June 30, 1999 -- \$26,500
July 1, 1999-December 31, 2002 -- \$27,500
35. Co-Principal Investigator
Water Resources Research Institute, Contract No. EA 8020.
“Measurement and Modeling of Ammonia/Ammonium Flux and Dry Deposition Velocity Above Natural Surfaces in Eastern North Carolina.”
May 1, 1998-May 30, 2001 -- \$353,428
36. Principal Investigator
National Science Foundation via Duke University, Contract No. 99-SC-NSF-1019
“Nitrogen Oxide Flux from Sludge Amended Soil.”
February 1, 1999-December 31, 2002 -- \$129,425
37. Principal Investigator
National Park Foundation, Contract No. 92899
"Non-Methane Hydrocarbons in the Rural Southeast United States National Parks."
September 15, 1999-September 14, 2002 -- \$75,000
38. Principal Investigator
Environmental Consulting and Research, Inc. via PAMS Foundation
FAS Account No. 684008.
"Air Quality Research Program"
January 31, 2000-unrestricted -- \$11,725
39. Principal Investigator
NC Department of Environment, and Natural Resources, Contract No. EA 01001.
“The Intergovernmental Personnel Act”
July 1, 2000-June 30, 2003 -- \$168,744
40. Principal Investigator
U.S. Department of State, Contract No. GO-1096100532
“Trends in Environmental Improvement-French and American Regional Approaches.”
January 1, 2001-December 31, 2001 -- \$3,888.00.
41. Principal Investigator
National Center for Manure and Animal Waste Management, Contract No. 2000-1320
“Gas-to-Particle Conversion between Ammonia, Acid Gases, and Fine Particles: White Paper.”
January 1, 2003-January 31, 2005 -- \$10,404.00

42. Principal Investigator and Program Scientist
Animal and Poultry Waste Management Center/Smithfield Foods, Raleigh, NC.
“An Integrated Study of the Emissions of Ammonia, Odor and Odorants, and Pathogens and Related Contaminants from Potential Environmentally Superior Technologies for Swine Facilities,” Project OPEN.
December 1, 2001-December 2003 -- \$1,400,700.00
December 1, 2003-June 2005 -- \$98,994.00
December 1, 2003-June 2005 -- \$1,300,000.00
43. Principal Investigator
National Park Service, Cooperative Agreement CA 4560C0027.
“Analysis of Ambient Air Quality in National Parks: Modeling and Analysis of Ozone, its Precursors, and Other Trace Gases.”
September 23, 2002-December 31, 2005 -- \$34,858.00
44. Principal Investigator
NCSU Animal & Poultry Waste Management Center, Contract No. (1786) 2006-0827
“Evaluation of Environmentally superior technology for Ammonia Emissions: Red Hill Farms.”
May 1, 2004-June 30, 2006 -- \$32,000.00
45. Principal Investigator and Project Scientist
National Research Initiative, US Department of Agriculture, Contract No. 2003-05360.
“Characterization and Fate of Ammonia and Hydrogen Sulfide from Animal Feeding Operations: Their Emissions, Transport, Transformation, Deposition, and Impact on Fine Particulate Matter.”
May 1, 2004-March 31, 2009 -- \$479,818.00
46. Principal Investigator
NC Department of Environment, and Natural Resources, Contract No. EA 05001.
“Collaborative Agreement on Division of Air Quality Issues”
October 1, 2004-June 30, 2008 -- \$172,034.00
47. Principal Investigator and Project Scientist
National Research Initiative, US Department of Agriculture, Contract No. 2004-05271.
“National Workshop on Agricultural Air Quality: State of the Science”
January 15, 2005-January 14, 2009 -- \$394,868.00.
48. Principal Investigator and Project Scientist
National Science Foundation, Contract No. ATM-0528420
“International Workshop on Agricultural impacts of Air Quality.”
June 1, 2005-May 31, 2008 -- \$30,000.00
49. Principal Investigator
US Department of Agriculture, Agricultural Research Service, Contract No. PA-06-01
“Workshop on Agricultural Air Quality: State of the Science.”
January 15, 2005-January 14, 2008 -- \$10,000.00

50. Principal Investigator
Potash & Phosphate Institute, Contract No. 2005-1798
“National Workshop on Agricultural Air Quality: State of the Science”
January 1, 2005-December 31, 2011 -- \$25,000.00
51. Principal Investigator
Kenan Institute for Engineering, Technology, and Science, Contract No. 761291
“National Workshop on Agricultural Air Quality”
January 1, 2005-December 31, 2009 -- \$60,000
52. Principal Investigator
Environmental Defense, Contract No. 2005-0516
“National Workshop on Agricultural Air Quality”
January 1, 2005-December 31, 2011 -- \$25,000
53. Principal Investigator
NC Department of Environment & Natural Resources, Contract No. EA06008
“Workshop on Agricultural Air Quality: State of the Science”
February 15, 2006-June 30, 2008 -- \$25,000
54. Principal Investigator
Ecological Society of America
“Air Quality”
August 1, 2006 -- \$85,000
55. Principal Investigator
National Science Foundation, Contract No. OIES-1034759
“US-India International Workshop: Collaborative Science, Research, and Education in Air Quality Measurements, Modeling and Analysis”
August 1, 2010-July 31, 2012 -- \$39,996.
56. Principal Investigator
US EPA, STAR (Science to Achieve Results) Grant 835411
"Organic Nitrogen and Brown Carbon in Biogenic SOA: Investigating the Link and Impacts of Anthropogenic Emissions"
June 1, 2013-May 30, 2016 -- \$160,000.
57. Senior Advisor
US GFDL-NOAA, Project NOAA CPO AC4
"Reactive nitrogen biogeochemical cycling in the GFDL Earth System Models: Advancing understanding of atmosphere-land interactions under changing climate and land use"
January 1, 2015-December 31, 2017 -- \$32,500.
58. Principal Investigator

National Aeronautics and Space Administration, Grant Number NNX15AN15H
“Use of Satellite Measurements to Validate and Improve Air Quality Predictions of
Ammonia and Fine Particulate Matter”
September 1, 2015-July 31, 2018 -- \$105,000.

59. Co-Principal Investigator
NC State University, Research Innovation Seed Funding
“Effects of climate and atmospheric change on plant-pollinator interactions”
July 1, 2016-June 30, 2017 -- \$ 31,914.
60. Principal Investigator
Kenan Trust Fund, Project Reference Number 062287.
“Use of Satellite Measurements to Validate and Improve Air Quality Predictions of
Ammonia and Fine Particulate Matter”
July 1, 2016-June 30, 2018-- \$ 20,000.

PATENTS

1. Aneja, V.P., February 15, 1983. "Purification of Aqueous Effluent Streams Containing BPA and Phenol," U.S. Patent No. 4,374,283.
2. Aneja, V.P., August 23, 1983. "Recovery of BPA and Phenol from Aqueous Effluent Streams," U.S. Patent No. 4,400,553.
3. Sikdar, S.K., and V.P. Aneja, September 4, 1984. "Azeotropic Recovery of BPA and Phenol from Aqueous Effluent Streams," U.S. Patent No. 4,469,561.
4. Aneja, V.P., January 8, 1985. "Method for Purification of Bisphenol-A," U.S. Patent No. 4,492,807.
5. Aneja, V.P., and J.P. Skilbeck, February 28, 1989. "Method for Devolatilizing Polymer Solutions," U.S. Patent No. 4,808,262.
6. Aneja, V.P. and J.P. Skilbeck, February 1, 1990, "Apparatus for Devolatilizing Polymer Solutions," U.S. Patent Application Serial No. 316,248

PATENT DISCLOSURE LETTERS

1. Aneja, V.P., and S.K. Sikdar, July 5, 1983. "A Simplified Process for Purification of Bisphenol-A," Docket No. RD-15,221, General Electric Company, Schenectady, NY.
2. Aneja, V.P., R. Fields and A.R. Shultz, September 1986. "Method of Producing Polymer-Impregnated Polymer and Artifacts Produced Thereby," General Electric Company, Schenectady, NY.
3. Aneja, V.P., and C.A. Griner, December 1986. "Methodology for Simulation of Devolatilization for Engineering Thermoplastic Polymers," General Electric Company, Schenectady, NY.

REFEREED JOURNAL PUBLICATIONS

1. Aneja, A.P. and **V.P. Aneja**, 1977, "The Strategy of Process Translation," *The International Journal of Research Management*, Vol. XX, No. 6, pp. 37-40.
2. Hill, F.B., **V.P. Aneja** and R.M. Felder, 1978, "A Technique for Measurement of Biogenic Sulfur Emission Fluxes," *Journal of Environmental Science and Health*, Vol. 13, No. 3, pp. 199-255.
3. **Aneja, V.P.**, E.P. Stahel, H.H. Rogers, A.M. Witherspoon and W.W. Heck, 1978, "Calibration and Performance of a Thermal Converter in Continuous Atmospheric Monitoring of Ammonia," *Analytical Chemistry*, Vol. 50, No. 12, pp. 1705-1708.
4. Aneja, A.P. and **V.P. Aneja**, 1978, "Poly(Ethylene Terephthalate) Feedstock Selection and Process Options," *Journal of Chemical Economy and Engineering Review*, Vol. 10, No. 9, pp. 33-36.
5. Aneja, A.P. and **V.P. Aneja**, 1978, "PET Process Options," *Textile Asia*, Vol. IX, No. 10, pp. 40-43.
6. **Aneja, V.P.**, J.H. Overton and J.L. Durham, 1979, "Sulfur Dioxide Flux to a Falling Raindrop in a Polluted Atmosphere," *American Institute of Chemical Engineers Series*, 188, Vol. 75, pp. 151-157.
7. **Aneja, V.P.**, J.H. Overton, L.T. Cupitt, J.L. Durham and W.E. Wilson, 1979, "Direct Measurements of Emission Rates of Some Atmospheric Biogenic Sulfur Compounds," *Tellus*, Vol. 31, No. 2, pp. 174-178.
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98. Krishnan, S., Y. Zhang, and **V. P. Aneja**, S.-Y. Wu, R. Mathur, 2006, "Modeling Study of Dry Deposition of Ammonia in North Carolina", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 834.
99. Zhang, Y., S.-Y. Wu, J.-L. Hu, S. Krishnan, K. Wang, A. Queen, **V. P. Aneja**, and P. Arya, 2006, Modeling Agricultural Air Quality: Current Status, Major Challenges, and Outlook, Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 428-432.
100. Occhipinti, C., **V. P. Aneja**, W. Showers, and D. Niyogi, 2006, "Isotopic and Back trajectory analysis on Rainfall chemistry for developing source-receptor relationships in fine particulate matter formation", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 961-964.
101. Blunden, J., **V. P. Aneja**, and P. W. Westermann, 2006, "Measurement and analysis of ammonia and hydrogen sulfide emissions from an Anaerobic swine waste treatment lagoon and confinement building in North Carolina", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 71-79.
102. Niyogi, D., K. Alapaty, **V. P. Aneja**, F. Chen, and R. A. Pielke, 2006, "Considerations for detailed Land Surface/ Vegetation representation in Air Quality models", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 267.
103. Bajwa, K. S., S. P. Arya, and **V. P. Aneja**, 2006, "Ammonia emissions and dry deposition studies at some hog farms in North Carolina", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 472-477.
104. Blunden, J., **V. P. Aneja**, and J. H. Overton, 2006, "Measurement and modeling of hydrogen sulfide emissions across the gas-liquid interface of an anaerobic swine waste treatment lagoon", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 505-509.

105. Blunden, J., **V. P. Aneja**, and W. A. Lonneman, 2006, "Characterization of Non-Methane Volatile Organic compounds at five confined Animal feeding operations in North Carolina", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 510-520.
106. Goetz, S., **V. P. Aneja**, and Y. Zhang, 2006, "Measurement, analysis, and modeling, of inorganic fine particulate matter in rural, ammonia-rich areas in Eastern North Carolina", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 627.
107. Konarik, S., **V. P. Aneja**, and D. Niyogi, 2006, "Trends in agricultural ammonia emissions and ammonium concentrations in precipitation over the Southeast and Midwest United States", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 816-822.
108. Paul, S., D. Niyogi, J. G. Alfieri, P. Albert, F. Chen, M. A. Lemone, and **V. P. Aneja**, 2006, "Exploration and application of statistical methods to identify vegetation-surface-atmospheric interactions using field observations", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 978.
109. Phillips, S. B, S. P. Arya, and **V. P. Aneja**, 2006, "Ammonia flux and dry deposition velocity estimated from an intensively managed animal agricultural facility in North Carolina", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 1001-1005.
110. Rumsey, I.C., **V.P. Aneja**, S.P. Arya, D.S. Kim, W.P. Robarge, D. Dickey, L.S. Stefanski, H. Semunegus, H.L. Arkinson, K. Bajwa, W. W. Stephens, S. B. Goetz, L. Todd, K. Mottus, and C.M. Williams, 2006, "Characterizing Ammonia Emissions from Potential Environmentally Superior Technologies for hog farms in Eastern North Carolina", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 1076-1085.
111. Occhipinti, C., C. Scott, and **V. P. Aneja**, 2006, "Coupling gaseous ammonia, fine particulate matter, and the role of precursor transport in North Carolina", Proceedings of the Workshop on Agricultural Air Quality: State of the Science, June 5-8, 2006, Potomac, MD, ISBN. 0-9669770-4-1, pp. 1124.
112. James, K. M. and **V. P. Aneja**, 2007, "Nitrogen Emissions from Agricultural Sources", Proceedings of the 100th Annual Conference and Exhibition of the Air and Waste Management Association, Pittsburgh, PA, Paper #355.
113. Blunden, J., and **V.P.Aneja**, 2007, "Measurements and modeling of ammonia and hydrogen sulfide emissions from a commercial swine finishing operation in North Carolina", Proceedings of the 100th Annual Conference and Exhibition of the Air and Waste Management Association, Pittsburgh, PA, Paper #59.

114. **Aneja, V.P.**, S. Goetz, and Y. Zhang, 2007, "Measurements, Analysis, and Modeling of Fine Particulate matter in High Ammonia Region of North Carolina, U.S.A.", Proceedings of the Conference Particulate Matter in and from Agriculture, Landbauforschung Volkenrode Special Issue 308, Braunschweig, Germany, ISBN 978-3-86576-032-6, pp. 147-155.

115. **Aneja, V.P.**, S.P. Arya, I. Rumsey, and C. Williams, 2008, "Characterizing Ammonia Emissions from Hog Farm Technologies - Part I: Conventional Lagoon and Spray Technology for Waste Treatment", Proceedings of the Conference Mitigating Air Emissions from Animal Feeding Operations, Des Moines, Iowa, ISBN 978-0-9817781-0-5, pp. 219-221.

116. **Aneja, V.P.**, S.P. Arya, I. Rumsey, and C. Williams, 2008, "Characterizing Ammonia Emissions from Hog Farm Technologies - Part II: Potential Environmentally Superior Technologies for Waste Treatment", Proceedings of the Conference Mitigating Air Emissions from Animal Feeding Operations, Des Moines, Iowa, ISBN 978-0-9817781-0-5, pp. 222-231.

117. Rumsey, I.C., **V.P. Aneja**, Lonneman, W.A., 2009. Characterizing sulfur and non-methane volatile organic compound emissions from concentrated animal feeding operations in North Carolina. Air Waste and Management 102nd Annual Conference and Exhibition, Detroit, MI, June 16-19, 2009.

118. **Aneja, V.P.**, 2010. "Quantifying emissions of ammonia for air quality analysis", Report on the MANE-VU 2009 Science Meeting – Total Reactive Nitrogen: Regional Haze Impacts and Mitigation Options, pp. 7-8.

119. Gore, M.L., **V.P. Aneja**, E.J. Cooter, R.L. Dennis, and J.E. Pleim, 2010. "Ammonia Emissions in the U.S.: Assessing the role of bi-directional ammonia transport using the Community Multi-Scale Air Quality (CMAQ) Model", Proceedings of the Workshop on Nitrogen Deposition, Critical Loads and Biodiversity, Edinburgh, UK.

120. Rumsey, I.C., **V.P. Aneja**, and W.A. Lonneman, 2010. "Measurements and Analysis of Non-Methane Volatile Organic Compounds Emissions from Concentrated Animal Feeding Operations in North Carolina", Air Waste and Management 103rd Annual Conference and Exhibition, Calgary, Canada, June 22-25, 2010, paper No. 2010-A-163-AWMA.

121. Pillai P., A. Khlystov, J.T. Walker, and **V. P. Aneja**, 2012. "Relationships between particle nucleation and radiative forcing at a forest site in the Southeast US", 16th International Symposium for the Advancement of Boundary-Layer Remote Sensing, Boulder, Colorado.

122. Pillai P.*, J.T. Walker, A. Khlystov, and V. P. Aneja, 2013. "Formation and Growth of Atmospheric Particles at a Forest Site in the Southeast US", Nucleation and Atmospheric Aerosols: 19th International Conference. AIP Conference Proceedings, Volume 1527, pp. 401-404 (2013). doi: 10.1063/1.4803288.

123. Bray, C., W. Battye, **V.P. Aneja**, D. Tong, P. Lee, and Y. Tang. 2015. “Ammonia prediction by the NOAA National Air Quality Forecast Capability system using DISCOVER-AQ and CalNex2010 field campaign data”, Air, Waste and Management Association Annual Conference and Exhibition-2015, Raleigh, North Carolina, June 22-25, 2015.
124. Pillai P., **V. P. Aneja**, J. Walker, Satellite Based Estimation of Shortwave Aerosol Radiative Forcing on Regional Nucleation Events at a forest site in the Southeast US, NCSU Graduate Student Symposium, North Carolina State University, Raleigh, NC. March 25, 215.
125. Rumsey, I.C., **V. P. Aneja**, and W. A. Lonneman, 2015, “Measurement and Modeling of Reduced Sulfur Compound Emissions from a Swine Concentrated Animal Feeding Operation”, Air, Waste and Management Association Annual Conference and Exhibition-2015, Raleigh, North Carolina, June 22-25, 2015.
126. Pillai P., **V. P. Aneja**, J. Walker, 2015. “Satellite Based Estimation of Shortwave Aerosol Radiative Forcing on Regional Nucleation Events at a forest site in the Southeast US”, Annual Conference, The Air & Waste Management Association (A&WMA), Raleigh, NC , June 22- 25, 2015.
127. Mikel, D. and **V.P. Aneja**, 2015. “Measurement of Polycyclic Aromatic Hydrocarbons near a Major Roadway”, Annual Conference, The Air & Waste Management Association (A&WMA), Raleigh, NC, June 22- 25, 2015, Paper # 260.
128. Bray, C.; Battye, W.; **Aneja, V.P.**; Tong, D.; Lee, P.; Tang, Y. Impact of Wildfires on Atmospheric Ammonia Concentrations in the US: Coupling Satellite and Ground Based Measurements. *In Proceedings of the 1st Int. Electron. Conf. Atmos. Sci.*, 16–31 July 2016; Sciforum Electronic Conference Series, Vol. 1, 2016 , B001; doi:[10.3390/ecas2016-B001](https://doi.org/10.3390/ecas2016-B001)
129. Mikel, D., and **V. P. Aneja**, 2016. “Measurements and Analysis of Polycyclic Aromatic Hydrocarbons near a Major Interstate” *In Proceedings of the 1st Int. Electron. Conf. Atmos. Sci.*, 16–31 July 2016; Sciforum Electronic Conference Series, Vol. 1, 2016 , B001; doi:[10.3390/ecas2016-B001](https://doi.org/10.3390/ecas2016-B001)

SYMPOSIUM CHAIRMAN

1. "Biogenic Emission of Sulfur, Hydrocarbon, and Nitrogen Gases into the Atmosphere", 73rd Air Pollution Control Association Annual Meeting, Montreal, Canada, June 22-27, 1980.
2. "Natural Emissions of Hydrocarbons, Halocarbons, Sulfur, and Nitrogen Gases into the Atmosphere", 74th Air Pollution Control Association Annual Meeting, Philadelphia, June 21-26, 1981.
3. "Natural Emissions of Hydrocarbons, Halocarbons, Sulfur, and Nitrogen Gases into the Atmosphere", 75th Air Pollution Control Association Annual Meeting, New Orleans, June 20-25, 1982.
4. "Environmental Impact of Natural Emissions", Technical Program Chairman, International Specialty Conference, Air Pollution Control Association, Research Triangle Park, NC, March 7-9, 1984.
5. "Global Climate Change", Chairman, Feature Mini Symposium at American Institute of Chemical Engineers Annual Meeting, Washington, D.C., November 25 - December 2, 1988.
6. "Global Climate Change", Chairman, American Institute of Chemical Engineers Annual Meeting, San Francisco, California, November 5-10, 1989.
7. "Atmospheric Dispersion. Computer Models for Risk Analysis", Chairman, Indo-US Workshop on Environmental Risk Analysis, New Delhi, India, December 12-16, 1989.
8. "Southern Oxidant Study - Photochemical Observations in the Rural Atmosphere" American Chemical Society National Meeting, Atlanta, Ga., April 15-19, 1991.
9. "Tropospheric Oxidant Formation and Chemistry", American Geophysical Union Western Pacific Meeting, Hong Kong, August 17-21, 1992.
10. "Oxidants in the Atmosphere," EPA/AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Durham, NC, May 3-7, 1993.
11. "Regional Photochemical Measurements and Modeling Studies - Photochemical Reaction Products," Air and Waste Management Association International Specialty Conference, San Diego, CA, November 7-12, 1993.
12. "North Carolina Ozone State Implementation Plan - Measurements and Modeling Studies," EPA/AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Durham, NC, May 2-6, 1994.

13. "North Carolina Ozone State Implementation Plan - Measurements and Modeling Studies," EPA/AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 14-19, 1995.
14. "Atmospheric Ammonia: Emission, Deposition and Environmental Impacts", Department of the Environment, U.K., Oxford, England, October 2-4, 1995.
15. "Natural emissions of Oxidant precursors: Validation of techniques and Assessment, (Project NOVA)", EPA/AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-10, 1996.
16. "Ozone", EPA/AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, April 29 - May 1, 1997.
17. "Project NOVA — Natural emissions of Oxidant precursors: Validation of techniques and Assessment," American Geophysical Union Fall Meeting, San Francisco, CA, December 8-12, 1997.
18. "Air Quality Modeling," 91st Air & Waste Management Association Annual Meeting, San Diego, CA, June 14-18, 1998.
19. "Ozone," EPA/AWMA International Symposium on Measurement of Toxic and Related Air Pollutants, Cary, NC, September 1-3, 1998.
20. "Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition, and Assessment", Chapel Hill, NC, June 7-9, 1999.
21. "Workshop on Air Quality Index and Emission Inventory Development for Delhi", New Delhi, India, June 6-8, 2000.
22. "Photochemical Oxidants," The Sixth International Conference on Air-Surface Exchange of Gases and Particles, Edinburgh, UK July 3-7, 2000.
23. "Ammonia Emissions", International Symposium on the Measurement of Toxic and Related Air Pollutants, Research Triangle Park, NC, September 12-14, 2000.
24. "Air-Surface Emissions and Gas Fluxes", 2000 Annual Meeting and International Conference of the American Institute of Hydrology, Research Triangle Park, NC, November 5-8, 2000.
25. "Atmospheric Issues Related to Nitrogen", Future Directions on Air Quality Research, Research Triangle Park, NC, February 12-15, 2001.
26. "Airborne Water Pollutants and Atmospheric Water", Water Resources Institute Annual Meeting, Raleigh, NC, April 9, 2002.
27. "Dust Storms and Their Effects on Human Health", Sino-US Workshop, Raleigh, NC, November 25-26, 2002.

28. "Ozone Precursors, Fugitive, Workplace, and Area Source Monitoring", Symposium on Air Quality Measurement Methods and Technology, Research Triangle Park, NC, April 19-22, 2004.
29. "Deposition of Air Pollutants", 13th World Clean Air and Environmental Protection Congress and Exhibition, London, U.K., August 22-27, 2004.
30. "Estimates of N and S Deposition", 2004 National Atmospheric Deposition Program - Scientific Symposium, Halifax, Nova Scotia 22-24 September 2004.
31. "Deposition", Particulate Matter Supersites Program & Related Studies, An International Specialty Conference Sponsored by the American Association for Aerosol Research, Atlanta, GA, February 7-11, 2005.
32. "International Perspectives in Agricultural Air Quality", Workshop on Agricultural Air Quality: State of the Science, Potomac, MD, June 5-8, 2006.
33. Workshop Chair, "Workshop on Agricultural Air Quality: State of the Science", Potomac, MD, June 5-8, 2006.
34. Meeting Co-chair, "Air Quality in the Agricultural Landscape: Measurements, Modeling, BMPs, and Emerging Regulations", ASA-CSSA-SSSA International Annual Meetings in Indianapolis, November 13-16, 2006.
35. "Particulate Matter in and from Agriculture", International Conference, Braunschweig, Germany, September 3-4, 2007.
36. "Managing Ammonia Emissions", U.S. Environmental Protection Agency, Science Advisory Board, Integrated Nitrogen Committee Workshop, Washington DC, October 20 – 21, 2008.
37. "International Congress on Recent Advances in Environmental Science & Technology (RAEST)" Banaras Hindu University, India, November 2-4, 2009.
38. Meeting Co-Chair, "Environmental Health and Technology, EH&T 2010", International Conference, Kanpur, India, March 15-17, 2010.
39. "Climate Change", Fourth International Conference on Plants and Environmental Pollution (ICPEP-4), Lucknow, India, December 8-11, 2010.
40. "Plant Response to Environmental Pollution", Fourth International Conference on Plants and Environmental Pollution (ICPEP-4), Lucknow, India, December 8-11, 2010.
41. Meeting Chair, "US-India International Workshop: Collaborative Science, Research, and Education in Air Quality Measurements, Modeling and Analysis", Hyderabad, India, March 14-24, 2011.

42. Workshop Chair, “US-India Air Quality and Climate Research Workshop”, Hyderabad, India, September 12-15, 2011.
43. “Agricultural Mapping, Monitoring, and Data Visualization for a Changing Global Environment, 2011 AGU Fall Meeting, San Francisco, CA, December 5, 2011.
44. Member Scientific committee for the “1st International Electronic Conference on Atmospheric Sciences”, July 16-31, 2016. <http://sciforum.net/conference/ecas2016>
45. International Advisory Committee Member “First International Conference on Environment Management and Sustainability (ICEMS- 2017)”, Navi Mumbai, India, January 4-6, 2017.
46. International Advisory Scientific Committee Member “International Congress on Environment and Health”, Adana, Turkey, October 23-25, 2017.

WORKSHOP AND PANEL MODERATOR

1. **Aneja, V. P.**, "Panel on Assessment of the Impact of Natural Emissions", U.S. Environmental Protection Agency, Research Triangle Park, NC, 1984.
2. **Aneja, V.P.**, "Blue Ridge Profiles Workshop", National Oceanic and Atmospheric Administration, Boulder, CO, 1989.
3. **Aneja, V.P.**, "Southeastern Consortium: Intermediate Oxidant Network (SCION) Workshop", North Carolina State University, Raleigh, NC, 1990.
4. **Aneja, V.P.**, "Intercomparison of Methodologies for Soil NO_x Emissions," U.S. Environmental Protection Agency Workshop, North Carolina State University, Raleigh, NC 27695, March 14-15, 1994.
5. **Aneja, V.P.**, "Natural emissions of Oxidant precursors: Validation of techniques and Assessment, (Project NOVA)", U.S. Environmental Protection Agency Planning Workshop, Raleigh, NC, March 2-3, 1995.
6. Zika, R. and **V.P. Aneja**, "Southern Oxidants Study Volatile Organics Data Workshop", University of Miami, Miami, FL, March 23-24, 1995.
7. **Aneja, V.P.**, Annual Workshop "Natural emissions of Oxidant precursors: Validation of techniques and Assessment, (Project NOVA)", sponsored by National Science Foundation and U.S. Environmental Protection Agency, Raleigh, NC, October 16-17, 1995.
8. **Aneja, V.P.**, "Atmospheric Nitrogen Compound: Emissions, Transport, Transformation, Deposition, and Assessment" Workshop sponsored by North Carolina Department of Environmental, Health and Natural Resources and Water Resources Research Institute, Raleigh, NC, March 10-12, 1997.
9. **Aneja, V.P.**, North Carolina Delegates Leader "Atmospheric Nitrogen Programs," Noordwĳkerhout, The Netherlands, March 24, 1998.
10. **Aneja, V.P.**, "North Carolina Atmospheric Nitrogen Science Team," Workshop sponsored by NC Division of Air Quality, Mt. Olive, NC, May 28, 1998.
11. **Aneja, V.P.**, "Ammonia Emissions Intercomparison," North Carolina State University, Raleigh, NC, October 1, 1998.
12. **Aneja, V. P.**, "Animal Agriculture and Processing: Managing Environmental Impacts", A&WMA International Specialty Meeting, St. Louis, MO, August 31, 2005.
13. **Aneja, V.P.**, "Environment and Energy Issues", UNC-India Summit, UNC General Administration, Chapel Hill, NC, January 30, 2013.

14. **Aneja, V.P.**, “Fifth International Conference on Plants and Environmental Pollution, ICPEP-5”, Member International Advisory Committee, Lucknow, India, December 2014.
15. **Aneja, V.P.**, “1st International Electronic Conference on Atmospheric Sciences (<http://sciforum.net/conference/ecas2016>)”, July 16 -31, 2016.

PRESENTATIONS AND SEMINARS (speaker underlined)

1. **Aneja, V. P.**, "Methanol Production by the Low Pressure Process", Department of Chemical Engineering, North Carolina State University, Raleigh, September 1971.
2. Durham, J. L., W. E. Wilson, **V. P. Aneja**, J. H. Overton, D. L. Blumenthal, J. A. Anderson, S. Frisella, W. Dannevik, L. Hull, and R. Woodford, "Sulfate Aerosol Formation Rate in an Oil Fired Power Plant Plume", AIChE 83rd National Meeting, Houston, TX, March 1977.
3. **Aneja, V. P.**, "Some Measurements and Estimates of Fluxes of Biogenic Sulfur Compounds", U.S. Environmental Protection Agency, Research Triangle Park, NC, April 1977.
4. **Aneja, V. P.**, "Sulfate Production in Raindrops", U.S. Environmental Protection Agency, Research Triangle Park, NC, November 1977.
5. **Hill, F. B.**, F. W. Barvenik, **V. P. Aneja**, and R. M. Felder, "On the Development of a Technique to Measure Biogenic Sulfur Emissions", AIChE 70th Annual Meeting, New York, NY, November 1977.
6. **Aneja, V. P.**, **J. H. Overton**, and J. L. Durham, "Sulfur dioxide Flux to a Falling Raindrop in Polluted Atmosphere", AIChE 70th Annual Meeting, New York, NY, November 1977.
7. **Aneja, V. P.**, and A. P. Aneja, "Mixing Characteristics and flow Visualization in a Polymeric Photo Reactor", AIChE 70th Annual Meeting, New York, NY
8. **Aneja, V. P.**, "Air Pollution Instrumentation", Air Polluting Biology, North Carolina State University, Raleigh, NC, May 1978.
9. **Rogers, H. H.**, and **V. P. Aneja**, "Dynamic Uptake of Atmospheric Ammonia by Selected Plant Species", American Society of Plant Physiologists Annual Meeting, Blacksburg, Virginia, June 1978.
10. **Aneja, V. P.**, J. H. Overton, L. T. Cupitt, J. L. Durham, and W. Wilson, "Direct Measurements of Emission Rates of some Atmospheric Biogenic Sulfur Compounds", 176th ACS National Meeting, Miami, FL, September 1978.
11. **Aneja, V. P.**, "Biogenic Sulfur", U.S. Department of Agriculture, Raleigh, NC, October 1978.
12. **Aneja, V. P.**, J. H. Overton, **L. T. Cupitt**, J. L. Durham, and W. Wilson, "Measurements of Emission Rates of Carbon Disulfide from Biogenic Sources and Its Possible Importance to the Stratospheric Aerosol Layer", AIChE 86th National Meeting, Houston, TX, April 1979.

13. **Aneja, V. P.**, "Development of a Technique for Determination Atmospheric Sulfur Dioxide", U.S. Environmental Protection Agency, Research Triangle Park, December 1978.
14. **Aneja, V. P.**, "Gaseous and Aerosol Air Pollution Monitoring and Instrumentation", U.S. Department of Agriculture, Raleigh, NC, January 1979.
15. **Aneja, V. P.**, and A. P. Aneja, "Emission Survey of Biogenic Sulfur Flux from Terrestrial Surfaces", AIChE 72nd Annual Meeting, San Francisco, CA, November 1979.
16. **Aneja, V. P.**, "Air Pollution Short Courses", Universities, Research Organizations, and Industry in India, February through May 1979.
17. **Aneja, V. P.**, "Direct Measurements of Emission Rates of Some Atmospheric Biogenic Sulfur Compounds and Their Possible Importance to the Stratospheric Aerosol Layer", Potential Environmental and Health Consequences of Atmospheric Sulfur Deposition, Gatlinburg, TN, October 1979.
18. **Aneja, V. P.**, J. H. Overton, and A. P. Aneja, "The Effects of Moisture on the Release of Biogenic Sulfur Compounds", 73rd Air Pollution Control Association Annual Meeting, Montreal, Canada, June 1980.
19. **Aneja, V. P.**, "Air Pollution Sources and Effluents", Department of Chemical and Environmental Engineering, Rensselaer Polytechnic Institute, October 1980.
20. **Aneja, V. P.**, and A. P. Aneja, "Measurements of Biogenic Sulfur Compounds and Their Contribution to the Global Sulfur Cycle", European Conference on Environmental Pollution, Frankfurt, West Germany, December 1980.
21. **Aneja, V. P.**, J. H. Overton, J. A. Anderson, and J. L. Durham, "Sulfate Aerosol Formation Rate in an Oil Fired Power Plant Plume", European Conference on Environmental Pollution, Frankfurt, West Germany, December 1980.
22. **Aneja, V. P.**, "BPA Aqueous Purification: Some Process Configurations", Project Review, Corporate Research and Development, General Electric Company, Schenectady, NY, May 1981.
23. **Aneja, V. P.**, "Atmospheric Biogenic Sulfur Compounds and the Global Sulfur Cycle", Department of Chemical and Environmental Engineering, Rensselaer Polytechnic Institute, Troy, NY, September 1981.
24. **Aneja, V. P.**, "Some Mechanisms of Biogenic Sulfur Compounds Release from Coastal Marine Sediments to the Atmosphere", 2nd World Congress of Chemical Engineering and World Chemical Exposition, Montreal, Canada, October 1981.

25. **Aneja, V. P.**, "Development of BPA and Phenol Recovery Process. High Purity BPA/Phenol Adduct", Project Review, Corporate Research and Development, General Electric Company, Schenectady, NY, March 1982.
26. **Aneja, V. P.**, "Solventless Purification Option. Noryl II: Continuous Devolatilization", Project Review, Corporate Research and Development, General Electric Company, Schenectady, NY, March 1983.
27. **Aneja, V. P.**, "Continuous Noryl II Isolation: GE Proprietary Flash Devolatilization Technology", 1983 Noryl Worldwide Technology Meeting, Montreal, Canada, November 1983.
28. **Aneja, V. P.**, "The Role of Tidal and Diurnal Variations on the Release of Biogenic Sulfur Compounds", Environmental Impact of Natural Emissions, Air Pollution Control Association International Conference, Research Triangle Park, NC, March 1984.
29. **Aneja, V. P.**, "Gradientless Reactor to Study Ammonia Transport in Aqueous Solution at Environmental Concentrations Under Dynamic Conditions", U. S. Environmental Protection Agency, Research Triangle Park, NC, March 1984.
30. **Aneja, V. P.**, "GE Proprietary Technology for the Continuous Isolation of Engineering Polymers and Silicones", Project Review, Corporate Research and Development, General Electric Company, Schenectady, NY, May 1984.
31. **Aneja, V. P.**, "On the Origin of the Stratospheric Sulfate Aerosol Layer", Joint Symposia of Indian Institute of Chemical Engineers, New Delhi, India, December 1984.
32. **Aneja, V. P.**, "POSH Technology: A Fundamental Investigation", Project Review, Corporate Research and Development, General Electric Company, Schenectady, NY, May 1985.
33. **Aneja, V. P.**, "NH₃ Mass Transfer Kinetics in Rain Drops", University of Stockholm, Arrhenius Laboratory, Stockholm, Sweden, May 1985.
34. **Aneja, V. P.**, "Factors Controlling the Emissions of Biogenic Sulfur", International Meteorological Institute, Stockholm, Sweden, May 1985.
35. **Aneja, V. P.**, "Dry Deposition of Ammonia at Environmental Concentrations on Selected Plant Species:", Department of Meteorology, University of Stockholm, Sweden, June 1985.
36. **Aneja, V. P.**, "Interactions Between the Atmosphere and the Biosphere", Department of Ecology, Swedish University of Agricultural Sciences, Uppsala, Sweden, June 1985.

37. **Aneja, V. P.**, "Advancements in PPO and Noryl Process Technology", Project Review, Corporate Research and Development, General Electric Company, Schenectady, NY, April 1986.
38. **Aneja, V. P.**, S. C. Lamson, and J. P. Skilbeck, "Controlled Distribution of Viscous Solutions in Rectangular Manifolds", 29th Annual GOSAM Symposium on Technology Transfer, Syracuse, NY, June 1986.
39. **Aneja, V. P.**, "G. E. Proprietary Technology for the Continuous Isolation of Engineering Polymers and Silicones", Silicone Products Business Division, General Electric Company, Waterford, NY, July 1986.
40. **Aneja, V. P.**, R. Fields, and A. Shultz, "Characterization of Solvent Vapor Sorption in Polymers and Polyblends", Eight General Electric Materials Characterization Workshop, Technology Application and Development Laboratories, General Electric Company, Louisville, Kentucky, May 1987.
41. **Aneja, V. P.** and J. H. Overton, "Dimethyl sulfide exchange between the marine-atmosphere interface: modification of emissions by chemical reactions", 194th American Chemical Society National Meeting, New Orleans, LA, August 30 - September 4, 1987.
42. **Aneja, V. P.**, R. Bradow, H. Brown, W. Robarge, and E. Cowling, "Cloud chemistry, deposition and interaction with the forest ecosystem", 4th Annual Gatlinburg Acid Rain Conference, Gatlinburg, TN, October 26-27, 1987.
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45. Bradow, R. L. and **V. P. Aneja**, "Aerosol compositional effects on mountain clouds: attributing sources of acid deposition", 12th International Conference on Atmospheric Aerosols, Condensation, and Ice Nuclei, Vienna, Austria, August 22-27, 1988.
46. **Robarge, W. P.**, **V. P. Aneja** and E.B. Cowling, "Comparison of indirect measurements and model estimates of cloud deposition at Mt. Mitchell, N.C.", "Rocky Mountain Conference, Denver, CO, August 3, 1988.
47. **Aneja, V. P.**, "Natural Sulfur Compounds and the Global Sulfur Cycle", The 2nd International Conference on Atmospheric Sciences and Applications to Air Quality, Tokyo, Japan, October 3 - 7, 1988.

48. **Aneja, V. P.**, E. B. Cowling and W. P. Robarge, "Quantifying Acidic Deposition and other Atmospheric pollutants at Mt. Mitchell, N.C.: An Integrated research program", Fifth Annual Gatlinburg Acid Rain Conference, Gatlinburg, TN, October 31 - November 1, 1988.
49. **Aneja, V.P.**, "Global Climate Change: The Oceanic Biogenic Sulfur Factor," E.I. duPont de Nemours & Company, Kinston, NC, November 14, 1988.
50. **Aneja, V. P.**, J. H. Overton and J. Durham, "The Emission of Dimethyl sulfide and its role in global climate change", American Institute of Chemical Engineers Annual Meeting, Washington, D.C., November 27 - December 2, 1988.
51. **Aneja, V.P.**, "Aircraft Real-time trace gas measurements over Mt. Mitchell, N.C.," Blue Ridge Profiles Workshop, National Oceanic and Atmospheric Administration, Boulder, CO, February 6-7, 1989.
52. **Aneja, A.**, K. Jacob, **V.P. Aneja** and A. Aneja, "Market Efficiency of New Products via State Transition," ORSA/TIMS Marketing Science Conference, Durham, N.C., March 18, 1989.
53. **Aneja, V.P.**, "Air Toxics: A Southern Perspective," Carolinas Air Pollution Control Association Meeting,
54. **Aneja, V.P.**, S.D. Kim, R. Baumgardner, and R. Paur, "Temporal Variability in Cloudwater Acidity as Revealed by Cloud and Rain Acidity/Conductivity (CRAC) Real Time Analyzer," International Conference on Global and Regional Environmental Atmospheric Chemistry, Beijing, China, May 3-10, 1989.
55. **Aneja, V.P.**, "Flux of Natural Sulfur Compounds In the Atmosphere," International Conference on Global and Regional Environmental Atmospheric Chemistry, Beijing, China, May 3-10, 1989.
56. **Aneja, V.P.**, "Forest Decline at Mt. Mitchell: The Air Pollution Factor," North Carolina Outward Bound School, Linville Gorge, June 5, 1989.
57. **Aneja, V.P.**, "Characterization of the Chemical and Physical Climatology at Mt. Mitchell, N.C.," Southern Forest Environment Research Council, Little Switzerland,, N.C., June 19-21, 1989.
58. Bradow, R., and **V. P. Aneja**, "The Role of Pre-existing aerosols in orographic cloud acidity", Air Pollution Control Association 82nd Annual Meeting, Anaheim, CA, June 25 - 30, 1989.
59. **Aneja, V. P.**, J. H. Overton, J. Durham, "Emission Rate of Dimethyl Sulfide at the Atmosphere - Ocean Interface and its role in global climate change", Sixth Symposium on Coastal and Ocean Management, Charleston, S.C., July 1989.

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63. **Aneja, V.P.** and J. Overton, "Simulating the Oceanic Flux of Dimethyl Sulfide into the Atmosphere and its Linkages with Global Climate," American Institute of Chemical Engineers Annual Meeting, San Francisco, November 5-10, 1989.
64. **Aneja, V.P.**, C.S. Claiborn, A. Murthy, D.S. Kim, G. Yoder and Z. Li, "Mountain Cloud Chemistry Research at Mt. Mitchell, N.C." First Annual Exposition Environmental Research in the Sunbelt-1989, Raleigh, N.C., November 14-15, 1989.
65. **Aneja, V.P.**, "Characterizing the Ozone Climatology at High Elevation in the Southern Appalachians" National Physical Laboratory, New Delhi, India, December 1989.
66. **Claiborn, C.S. and V.P. Aneja**, "Measurements of Atmospheric Hydrogen Peroxide in the Gas-Phase and in Cloudwater at Mt. Mitchell State Park, N.C." EPA-AWMA Symposium on Measurement of Toxic and Related Air Pollutants, Raleigh, N.C., May 1-4, 1990.
67. **Murthy A., V.P. Aneja**, and R. Bradow, "Monitoring of Nitrogen Pollutants at Mt Mitchell, North Carolina", EPA-AWMA Symposium on Measurement of Toxic and Related Air Pollutants, Raleigh, N.C., May 1-4, 1990.
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69. Murthy, A. and **V.P. Aneja**, "Deposition and Interaction of Nitrogen Containing Pollutants to a High Elevation Forest Canopy", Air and Waste Management Association 83rd Annual meeting, Pittsburgh, PA, June 24-29, 1990.
70. **Aneja, V.P.**, "Assessing and Interpreting County-wide Environmental Information: Gaston County Effort," North Carolina Association of County Commissioners Annual Conference, Asheville, N.C., August 10, 1990.

71. Aneja, A.P., **V.P. Aneja**, and K.I. Jacob, "Hydrodynamics in a Polycondensation Semi-Batch Reactor", 18th Australasian Chemical Engineering Conference - CHEMECA 1990, Auckland, New Zealand, August 27-30, 1990.
72. Kim, D.S. and **V.P. Aneja**, "Chemical Composition of Clouds at Mt. Mitchell, North Carolina, "18th Australasian Chemical Engineering Conference - CHEMECA 1990, Auckland, New Zealand, August 27-30, 1990
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74. Aneja, V.P., S. Pal Arya and G. Yoder, "Ozone in the Urban Southeastern United States," International Conference in Acidic Deposition: Its Nature and Impacts, Glasgow, U.K. September 16-21, 1990.
75. Aneja, V.P., "Surface Ozone, hydrogen peroxide, and nitric acid: Trends, seasonal variations and analysis", Department of Chemistry, Appalachian State University, Boone, NC, 28608, October 19, 1990.
76. Aneja, V.P., "Forest Decline and Air Pollution: Comprehensive Research Activity at Mount Mitchell, NC", Carolina Air Pollution Control Association Annual Meeting, Myrtle Beach, SC, October 24-26, 1990.
77. Aneja, V.P., C. Claiborn, Z. Li and A. Murthy, "Surface Ozone, Hydrogen Peroxide and Nitric Acid", First Annual Southern Appalachian Man and Biosphere Conference, Gatlinburg, TN, November 4-5, 1990.
78. Claiborn, C.S., **V.P. Aneja**, and R.G. Carbonell, "Atmospheric-Biospheric Interactions: Transport and Chemistry of Atmospheric Hydrogen Peroxide in Plant leaves", American Institute of Chemical Engineers Annual Meeting, Chicago, IL, November 14-16, 1990.
79. Aneja, V.P., "Southern Oxidants Study", SCION Workshop, North Carolina State University, Raleigh, NC, November 26, 1990.
80. Aneja, V.P., "Southeastern Consortium Intermediate Oxidant Network", SCION Workshop, North Carolina State University, Raleigh, NC, November 26, 1990.
81. Rodgers, M.O., J.F. Meagher, R.T. McNider, and **V.P. Aneja**, "Oxidant formation, and distribution on regional scales", 71st Annual Meeting, The American Meteorological Society, New Orleans, LA, January 13-18, 1991.
82. Claiborn, C.S. and **V.P. Aneja**, "Factors Affecting the hydrogen peroxide content of the atmosphere at high elevation in the Southern Appalachians", 201st. American Chemical Society National Meeting, Atlanta, GA, April 15-19, 1991.

83. Aneja, V.P., Z. Li, and A. Murthy, "Surface Ozone and Nitric Acid at Mt. Mitchell, NC," 201 St. American Chemical Society National Meeting, Atlanta, GA, April 15-19, 1991.
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85. Claiborn, C.S. and V.P. Aneja, "Analysis of Measurements of Atmospheric Hydrogen Peroxide in the Gas-Phase and in Cloudwater at Mt. Mitchell State Park, NC", EPA-AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Durham, NC, May 7-10, 1991.
86. Claiborn, C.S. and V.P. Aneja and R.. G. Carbonell, "Determination and Analysis of Uptake of gaseous Hydrogen Peroxide by Red Spruce Seedlings, Determined by CSTR-Type Chamber Experiments", EPA-AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Durham, NC, May 7-10, 1991.
87. Li, Z. and V.P. Aneja, "Regional and Comparative Analysis of Cloud Chemistry at High Elevations in the Eastern United States", EPA-AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Durham, NC, May 7-9, 1991.
88. Kim, D.S., and V.P. Aneja, "Temporal Variation in Cloud Water Chemistry at Mt. Mitchell, NC, and its relationship to cloud Microphysics", EPA-AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Durham, NC, May 7-9, 1991.
89. Aneja, V.P., C. Claiborn, Z. Li and A. Murthy, "Trends and Seasonal Variations of High Elevation Surface Ozone, Hydrogen Peroxide and Nitric Acid", 84th Annual AWMA Meeting, Vancouver, BC, June 16-21, 1991.
90. Aneja, V.P., "Environmental Compliance: Answers for the 90's", ABB Flakt Guardsman Workshop, High Point, NC, September 11, 1991.
91. Aneja, V.P., Southeast Oxidant and Nitrogen Intensive Analysis," Southern Oxidants Study Annual Workshop, Atlanta, GA, November 12-14, 1991.
92. Aneja, V.P., D.S. Kim, Z. Li, C.S. Claiborn, M. Das and M. Rodgers, "Rural Atmospheric Photochemical Oxidants: Trends and Interpretation," American Geophysical Union 1991 Fall Meeting, San Francisco, CA, December 9-13, 1991.
93. Aneja, V.P., "CH₄ and N₂O Trace Gas Exchange and Interactions in the Tropics," International Global Atmospheric Chemistry Workshop, Research Station of Lamto, Ivory Coast, February 9-14, 1992.
94. Ringler, E., V.P. Aneja, C. Kamme, H. Tarnhuvud, and S. Viswanathan, "A ground-based intercomparison of path integrated, differential absorption measurements and conventional point measurements of ambient trace gas concentration," Air and Waste

Management Association International Specialty Conference on Optical Remote Sensing and Applications to Environmental and Industrial Safety Problems, Houston, TX, April 5-8, 1992.

95. Adams, A.A. and **V.P. Aneja**, "An observation based analysis of ozone production for urban areas in North Carolina," EPA-AWMA International Symposium on Measurement of Toxic and Related Air Pollutants, Durham, NC, May 3-8, 1992.
96. Das, M. and **V.P. Aneja**, "Trends and Analysis of Hydrogen Peroxide Concentrations in Raleigh", EPA-AWMA International Symposium on Measurement of Toxic and Related Air Pollutants, Durham, NC, May 3-8, 1992.
97. Ringler, E.R. and **V.P. Aneja**, "A ground based intercomparison of path integrated DOAS measurements and conventional point measurements of ambient trace gas concentrations", International Symposium on Environmental Sensing, Berlin, Germany, June 22-26, 1992.
98. **Aneja, V.P.**, "Organic compounds in cloud water collected at a remote continental site," American Geophysical Union Western Pacific Meeting, Hong Kong, August 17-21, 1992.
99. Kim, D.S. and **V.P. Aneja**, "Measurements of odd nitrogen compounds at a rural and an urban site in North Carolina and its correlation with ozone," American Geophysical Union Western Pacific Meeting, Hong Kong, August 17-21, 1992.
100. **Aneja, V.P.**, "Atmospheric-Biospheric Interactions," Air Resources Research Consortium, Raleigh, NC, September 10, 1992.
101. Claiborn, C.S., R.G. Carbonell and **V.P. Aneja**, "Modelling the transport of air pollutants in conifer needles", American Institute of Chemical Engineers Annual Meeting, Miami Beach, Florida, November 1-6, 1992.
102. **Aneja, V.P.**, "Air Toxics Exposures in Mountain Ecosystems," U.S. Environmental Protection Agency, Research Triangle Park, NC, November 16, 1992.
103. **Aneja, V.P.**, "Tropospheric Ozone - Causes and Effects," Sci-Link Workshop, Raleigh, NC, November 20, 1992.
104. **Aneja, V.P.**, "Air Quality in Southern Appalachia," University of North Carolina, Asheville, NC, November 23, 1992.
105. Hartsell, B.E., **V.P. Aneja**, D. Grosjean, E.L. Williams, and E. Grosjean. "Measurements of Ambient PAN Concentrations at Two Sites in Atlanta, Georgia," EPA-AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Durham, NC, May 1993.
106. Kim, D.S. and **V.P. Aneja**, "Measurements of Reactive Oxidized Nitrogen Compounds at a Rural and an Urban Site in North Carolina and its Correlation with

Ozone," EPA-AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Durham, NC, May 1993.

107. Das, M. and **V.P. Aneja**, "Gaseous Hydrogen Peroxide Concentrations in the Central Piedmont Region of North Carolina," EPA-AWMA International Symposium on Measurements of Toxic and Related Air Pollutants, Durham, NC, May 1993.
108. **Aneja, V.P.**, "Partitioning of NO_y in the Central Piedmont, NC, Site SONIA," SOS Data Analysis Workshop, Denver, CO, May 1993.
109. **Aneja, V.P.** and D. Grosjean, "Peroxyacetyl Nitrate Intercomparison and Trends in Atlanta, GA," SOS Data Analysis Workshop, Denver, CO, May 1993.
110. **Aneja, V.P.**, "Southeast Oxidant and Nitrogen Intensive Analysis," SOS Data Analysis Workshop, Denver, CO, May 1993.
111. Hartsell, B.E. and **V.P. Aneja**, "Characterization of Peroxyacetyl Nitrate (PAN) at the Rural Southern Oxidants Study Site in Central Piedmont North Carolina, Site SONIA," Air and Waste Management Association 86th Annual Meeting, Denver, CO, June 1993.
112. Aneja, A.P. and **V.P. Aneja**, "Prevaporation through Composite Membranes," 11th International Congress of Chemical Engineering, Prague, Czechoslovakia, August 1993.
113. Ringler, E.S. and **V.P. Aneja**, "Remote Sensing of Criteria Pollutants and Volatile Organic Compounds Using Differential Optical Absorption Spectrometer," The First International Oil, Gas, and Petrochemical Congress, Isfahan, Iran, September 1993.
114. Kim, D.S. and **V.P. Aneja**, "Characterization of Nitrogen Oxide Fluxes from Soils in the Central Piedmont of North Carolina", International Symposium for Climate Change, Korea Meteorological Conference, Seoul, Korea, October 1993.
115. **Aneja, V.P.** and D.S. Kim, "Trends and Analysis of Ambient NO, NO_y, CO and Ozone Concentrations in Raleigh, North Carolina," International Conference on Regional Photochemical Measurement & Modeling Studies, San Diego, CA, November 7-12, 1993.
116. Hartsell, B., **V.P. Aneja** and D. Grosjean, "Ambient Peroxyacetyl Nitrate Concentrations and Their Relationship to Ozone in Downtown and Suburban Atlanta," International Conference on Regional Photochemical Measurement & Modeling Studies, San Diego, CA, November 7-12, 1993.
117. Das, M. and **V.P. Aneja**, "Correlation of Ozone and Meteorology with Hydrogen Peroxide in Photochemically Non-aged and Aged Air," International Conference on Regional Photochemical Measurement & Modeling Studies, San Diego, CA, November 7-12, 1993.

118. Edgerton, E., **V.P. Aneja**, T. Lee, R. Muldin, J. Riordan, T. Rhyne, and M. Rodgers, "Overview of the Southern Oxidants Study - Southeastern Consortium Intermediate Oxidant Network (SOS-SCION)," International Conference on Regional Photochemical Measurement & Modeling Studies, San Diego, CA, November 7-12, 1993.
119. Apel, E., J. Calvert, R. Zika, M. Rodgers, **V.P. Aneja**, and J. Meagher, "Hydrocarbon Measurements During 1992 Southern Oxidants Study Atlanta Intensive: Protocol and Quality Assurance," International Conference on Regional Photochemical Measurement & Modeling Studies, San Diego, CA, November 7-12, 1993.
120. Lawrimore, J., M. Das, and **V.P. Aneja**, "Vertical Sampling and Analysis of Speciated Non-methane Hydrocarbons for Ozone Control in Urban North Carolina", International Conference on Regional Photochemical Measurement & Modeling Studies, San Diego, CA, November 7-12, 1993.
121. **Aneja, V.P.**, A. Riordan, J. Spaeth, J. Lawrimore, F. Stratton, M. Das and B. Timin, "Determination of the Vertical Structure of the Planetary Boundary Layer and its Relationship to the Distribution of Ozone in the Lower Troposphere", International Conference on Regional Photochemical Measurement & Modeling Studies, San Diego, CA, November 7-12, 1993.
122. **Aneja, V.P.**, W. Robarge, B. Holbrook, and D.S. Kim, "Soil Emissions of NO_x from the Rural Central Piedmont of North Carolina in U.S.", International Conference on Regional Photochemical Measurement & Modeling Studies, San Diego, CA, November 7-12, 1993.
123. Zika, R., D. Riemer, P. Milne, C. Farmer, A. Bricker, C. Stoneking, J. Pearson, M. Rodgers, R. Imhoff, Z. Li, and **V. Aneja**, "Assessing Horizontal and Vertical Homogeneity of Non-Methane Hydrocarbon Distribution During the Southern Oxidant Study Atlanta 1992 Intensive", International Conference on Regional Photochemical Measurement & Modeling Studies, San Diego, CA, November 7-12, 1993.
124. Saxena, V.K., P.A. Durkee, **V.P. Aneja**, W.P. Robarge, J.D. Grovenstein, K.L. Burns, J.C. Ulman, C.E. Deininger, T.P. DeFelice, and S.P.R. Pasumarti, "Cloud-climate Feedback Mechanisms: A preliminary project report from Mount Mitchell, North Carolina", Conference on Atmospheric Chemistry, American Meteorological Society, Nashville, TN, 23-28 January 1994.
125. Holbrook, B.D., **V.P. Aneja** and W.P. Robarge, "Nitrogen Oxide Fluxes from Soils of Two Piedmont North Carolina Locations", Conference on Atmospheric Chemistry, American Meteorological Society, Nashville, TN, 23-28 January 1994.
126. Kim, D.S. and **V.P. Aneja**, "Trends and Analysis of Ambient NO and NO_y Concentrations in Raleigh, North Carolina", Conference on Atmospheric Chemistry, American Meteorological Society, Nashville, TN, 23-28 January 1994.

127. **Aneja, V.P.**, "Trace Gas-Aerosol Interactions", Southern Hemisphere Marine Aerosol Characterization Experiment (ACE-1) Workshop, Hobart, Tasmania, Australia, February 7-9, 1994.
128. **Aneja, V.P.**, "Characterization of Emissions of Nitrogen Oxides from Soils of Southeast U.S. Overview of the Project", Intercomparison of Methodologies for Soil NO_x Emissions Workshop, Raleigh, NC, March 14-15, 1994.
129. **Aneja, V.P.**, "Chamber Technique for the Measurement of NO_x Flux", Intercomparison of Methodologies for Soil NO_x Emissions Workshop, Raleigh, NC, March 14-15, 1994.
130. **Robarge, W.P.**, **V.P. Aneja**, V.K. Saxena, B. Holbrook, L. Sullivan, T. Moore, T. Pierce, and C. Geron, "Nitrogen Oxide Fluxes from Agricultural Soils on the Coastal Plain of North Carolina, U.S.A", Global Change and Terrestrial Ecosystems Science Conference, Woods Hole, MA, May 1994.
131. **Holbrook, B.**, **V.P. Aneja**, and W.P. Robarge, "Temporal Variation of Nitrogen Oxide Fluxes from Agricultural Soils in Coastal Plain of North Carolina", International Symposium on Measurement of Toxic and Related Air Pollutants, Durham, NC, May 2-6, 1994.
132. **Lawrimore, J.**, M. Das, and **V.P. Aneja**, "Vertical Sampling and Analysis of NMHCS in Raleigh, NC from a 2000 Foot Tower", International Symposium on Measurement of Toxic and Related Air Pollutants", Durham, NC, May 2-6, 1994.
133. **Aneja, V.P.**, J.H. Lawrimore, M. Das, F. Stratton, T.P. Murray, W.G. Lonneman, and **G.C. Murray**, "Vertical Distributions of Carbonyls for Ozone Control in Urban North Carolina", International Symposium on Measurement of Toxic and Related Air Pollutants, Durham, NC, May 2-6, 1994.
134. **Aneja, V.P.**, M. Das, J. Lawrimore, J.C. Spaeth, and F. Stratton, "Chemical and Physical Vertical Measurements in Urban North Carolina for Ozone Control", Air and Waste Management Association 87th Annual Meeting, Cincinnati, Ohio, June 19-24, 1994.
135. **Aneja, V.P.**, "Deposition of Organic Compounds Via Clouds", Air and Waste Management Association 87th Annual Meeting, Cincinnati, Ohio, June 19-24, 1994.
136. **Aneja, V.P.**, "Measurement and Analysis of the Vertical Distribution and Emissions of Nonmethane Hydrocarbons in Urban North Carolina for Ozone Control", National Institute for Resources and Environment, Tsukuba, Japan, September 1, 1994.
137. **Kim, D.S.** and **V.P. Aneja**, "Measurement and Analysis of Reactive Nitrogen Species in the Rural Troposphere of Southeast United States", International Symposium on Global Atmospheric Chemistry, Fuji-Yoshida, Japan, September 5-9, 1994.

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139. Aneja, V.P., "Reactive Nitrogen Species, Fertilization, and Regional Ozone", Kunsan National University, Kunsan, Korea, September 12, 1994.
140. Aneja, V.P., "Nitrogen Compounds in the Atmosphere", Kunsan National University, Kunsan, Korea, September 13, 1994.
141. Aneja, V.P., "Reactive Nitrogen Species in the Southeast U.S. and Regional Ozone", Korea Advanced Institute of Science and Technology, Taejeon, Korea, September 14, 1994.
142. Aneja, V.P., "Raleigh/Durham Summer Ozone and Its Precursor Study", Korea Institute of Science and Technology, Seoul, Korea, September 15, 1994.
143. Aneja, V.P., "The Southern Appalachian Mountains Initiative: SAMI", Air Resources Research Consortium Meeting, Raleigh, NC, September 27, 1994.
144. Aneja, V.P., "Chemical Meteorology Research Program", Air Resources Research Consortium Meeting, Raleigh, NC, September 27, 1994.
145. Aneja, V.P., "Biogenic Nitrogen Oxides Emissions, Fertilization and Regional Ozone", U.S. Environmental Protection Agency, Research Triangle Park, NC, October 5, 1994.
146. Kim, D.S. and V.P. Aneja, "Oxides of Nitrogen Species Measurements and Analysis in North Carolina, U.S.A.", Korea Air Pollution Research Association, Pusan, Korea, October, 1994.
147. Sullivan, L.J., T.C. Moore, B.D. Holbrook, V.P. Aneja, and W.P. Robarge, "Biogenic Oxides of Nitrogen, Soil Fertilization, and Air Quality", The Fifth Annual Southern Appalachian Man and the Biosphere Conference, Hendersonville, NC, November 14-17, 1994.
148. Aneja, V.P., "Organic Chemical Exposure Via Clouds to Sensitive Ecosystems: A Missing Link to Forest Decline", The Fifth Annual Southern Appalachian Man and the Biosphere Conference, Hendersonville, NC, November 14-17, 1994.
149. Aneja, V.P., "Overview of Project NOVA", Natural emissions of Oxidant precursors: Validation of techniques and Assessment Planning Workshop, Raleigh, NC, March 2-3, 1995.
150. Aneja, V.P., "NCSU Chamber Measurements for Flux of Trace Gases", Natural emissions of Oxidant precursors: Validation of techniques and Assessment Planning Workshop, Raleigh, NC, March 2-3, 1995.

151. Aneja, V.P., "Urban, Regional, and Global Ozone and Air Quality", Sci-Link Teacher Day, Raleigh, NC, March 17, 1995.
152. Oommen, R., **V.P. Aneja**, and A. Riordan, "A relationship between meteorological parameters and high ozone days for the summer of 1994 for the Raleigh Metropolitan Statistical Area (MSA)", The Fourth Annual North Carolina State University Undergraduate Research Symposium, Raleigh, NC, April 18, 1995.
153. Sullivan, L., **V.P. Aneja**, W.P. Robarge, V.K. Saxena, T.C. Moore, J. O'Connor, P. Roelle, T. Price, and C. Geron, "Measurements, Characterization and Effect of Ambient Concentration on Nitric Oxide Fluxes from Agriculturally Managed Soil in the Upper Coastal Plain of North Carolina," Environmental Science Research Fair, U.S. Environmental Protection Agency, Research Triangle Park, NC, April 21, 1995.
154. Aneja, V.P., M. Das, J.H. Lawrimore, and C. Hagerman, "Non-methane hydrocarbons over urban North Carolina," Environmental Science Research Fair, U.S. Environmental Protection Agency, Research Triangle Park, NC, April 21, 1995.
155. Moore, T.C., L.J. Sullivan, **V.P. Aneja**, and W.P. Robarge, "Mixing ratios, Transport and Sources of Oxides of Nitrogen in the Non-Urban Planetary Boundary Layer", International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 16-19, 1995.
156. Sullivan, L.J., T.C. Moore, **V.P. Aneja**, and W.P. Robarge, "Measurements, Characterization and Seasonal Variability of Nitric Oxide Fluxes from Agricultural Soils in the Upper Coastal Plain of North Carolina", International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 16-19, 1995.
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158. **Aneja, V.P.**, A.B. Murthy, W. Battye, R. Battye, and W.G. Benjey, "Trends, Seasonal Variations, and Analysis of Ammonia and Aerosol Concentrations Near the Free Troposphere at Mt. Mitchell, NC, U.S.A.," International Symposium on Atmospheric Ammonia: Emission, Deposition and Environmental Impacts, Department of the Environment, U.K., Oxford, England, October 2-4, 1995.
159. Aneja, V.P., "Overview of Natural emissions of Oxidant precursors: Validation of techniques and Assessment," Project NOVA Annual Workshop, Raleigh, NC, October 16-17, 1995.
160. Roelle, P., J. O'Connor, D.S. Kim, W. Robarge and **V.P. Aneja**, "NO_x Dynamic Chamber Measurements," Project NOVA Annual Workshop, Raleigh, NC, October 16-17, 1995.

161. Das, M., L. Hagerman, **V.P. Aneja**, and W. Lonneman, "Hydrocarbon gradient measurements," Project NOVA Annual Workshop, Raleigh, NC, October 16-17, 1995.
162. Stratton, F., L. Claxton, **V.P. Aneja**, R.C. Smart, and T. Hughes, "Mutagenic activity of Raleigh air samples at three different elevations before, during and after Tropical Storm Beryl," 13th Annual Fall Meeting, Genotoxicity and Environmental Mutagen Society, Research Triangle Park, NC, October 20, 1995.
163. **Aneja, V.P.**, "Natural oxides of nitrogen: A Review," North American Research Strategy on Tropospheric Ozone, NARSTO, Workshop and Meeting, San Antonio, TX, November 14-16, 1995.
164. Oommen, R.G., **V.P. Aneja**, A.J. Riordan and G. Murray, "Influence of meteorology on ozone behavior in urban North Carolina," American Geophysical Union 1995 Fall Meeting, San Francisco, CA, December 11-15, 1995.
165. Das, M., **V.P. Aneja**, J.H. Lawrimore, and R.G. Oommen, "Vertical Distribution of Non-methane Hydrocarbons over North Carolina," American Geophysical Union 1995 Fall Meeting, San Francisco, CA, December 11-15, 1995.
166. **Aneja, V.P.**, P.A. Roelle, J.R. O'Connor, W.P. Robarge, D.S. Kim, C. Geron, T. Pierce, and B. Gay, "Measurements of nitric oxide flux from intensively managed agricultural soil in the Coastal Plain of North Carolina," American Geophysical Union 1995 Fall Meeting, San Francisco, CA, December 11-15, 1995.
167. Roelle, P.A., D.S. Kim, J.R. O'Connor, W.P. Robarge, and **V.P. Aneja**, "Nitric Oxide Fluxes from Agricultural Soils in the Southeast United States," International Workshop on NO_x Emissions from Soils and Its Influence on Atmospheric Chemistry, Tsukuba, Japan, March 4 - 6, 1996.
168. **Aneja, V.P.**, W.P. Robarge, S. Arya, V. Saxena, C. Geron, T. Pierce, B. Gay, B. Hicks, W. Luke, T. Meyers, M. Wesley, A. Delany, J. Levine, T. Ellestad, J. Clark, P. Finklestein, B. Doddridge, and J. Pierce, "Project NOVA (Natural Emissions of Oxidant Precursors: Validation of Techniques and Assessment) Overview," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
169. Robarge, W.P., **V.P. Aneja** and Zhongju Li, "Natural Emissions of Oxidant Precursors: Validation of Techniques and Assessment (Project NOVA 1995) - Site Characterization," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
170. Levine, J.S., D.R. Cahoon, Jr., W.R. Cofer III, E.L. Winstead, W.P. Robarge and **V.P. Aneja**, "Biogenic Soil Emissions of Nitric Oxide and Nitrous Oxide Using a Closed Static Chamber During the NOVA-95 Experiment," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.

171. Roelle, P.A., J.R. O'Connor, D.S. Kim, W.P. Robarge, and **V.P. Aneja**, "Measurements of Nitric Oxide Flux from Intensively Managed Agricultural Soil in the Coastal Plain of North Carolina," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
172. Li, Y., S.P. Arya, and **V.P. Aneja**, "Nitric Oxide Fluxes Observed Over a Fertilized Corn Field Micrometeorology and Flux-Gradient Relation of NO-NO₂-O₃ System Near the Surface," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
173. Das, Mita, **V.P. Aneja**, L. Hagerman, W. Lonneman, D. Cook and M. Wesley, "Flux Measurements of Volatile Organic Compounds Over a Corn Field," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
174. Li, Zhongju, W.P. Robarge, and **V.P. Aneja**, "Measurement of Soil Nitrous Oxide Flux From an Intensively Managed Agricultural Row Crop in the Lower Coastal Plain Region of North Carolina," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
175. **Aneja, V.P.**, P.A. Roelle, J.R. O'Connor, and W.P. Robarge, "Biogenic Nitric Oxide Source Strengths," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
176. Saxena, V.K., **V.P. Aneja**, T.P. DeFelice, and M. Wesley, "Atmospheric Pollutant Deposition Over a South Central North Carolina Cornfield," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
177. Oommen, R.G., **V.P. Aneja**, A.J. Riordan, G.C. Murray, Jr., and T. Manuszak, "Contributions of Meteorology on Ozone Behavior in Urban North Carolina," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
178. O'Connor, J.R., **V.P. Aneja**, W. Cornelius, and G. Murray, "A Climatology of Regional Ozone: Meteorological Effects on Ozone Exceedences in the Southeast U.S.," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
179. Hagerman, L.M. and **V.P. Aneja**, "Regional Analysis of Non-Methane Hydrocarbons in the Southeastern United States," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.
180. dePollok, F.S., **V.P. Aneja**, and R.C. Smart, "Mutagenic Activity of Raleigh Air Samples at Three Different Elevations Before, During and After Hurricane Gordon," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, May 7-9, 1996.

181. **Aneja, V.P.**, "Biogenic nitrogen oxide emissions, reactive nitrogen species, and regional ozone," University of Sydney, Sydney, Australia, May 16, 1996.
182. **Aneja, V.P.**, "Tropospheric ozone: Formation, distribution, effects, and control," University of Sydney, Sydney, Australia, May 16, 1996.
183. Sullivan, L., T.C. Moore, **V.P. Aneja**, W.P. Robarge, T. Pierce, C. Geron, and B. Gay, "Environmental variables controlling nitric oxide emissions from agricultural soils in the southeast United States," 89th Annual Meeting of Air and Waste Management Association, Nashville, TN, June 23-28, 1996.
184. **Aneja, V.P.** and W.P. Robarge, "Soil-Biogenic NO_x Emissions and Air Quality," The Sixth International Conference of the Israel Society for Ecology and Environmental Quality Sciences, Jerusalem, Israel, June 30 - July 4, 1996.
185. **Aneja, V.P.**, "Atmospheric Nitrogen Compounds: Emissions, Transport, Transformation, Deposition and Assessment An Overview," Workshop on Atmospheric Nitrogen Compounds, Raleigh, NC, March 10-12, 1997.
186. **Aneja, V.P.**, Y. Li, J. Walker, and J.P. Chauhan, "Atmospheric Ammonia/Nitrogen Compound Emissions and Characterization," Workshop on Atmospheric Nitrogen Compounds, Raleigh, NC, March 10-12, 1997.
187. **Brittig, J.** and **V.P. Aneja**, "Air Quality Related Variables Effecting Ozone Exceedences in the Southeast United States," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, April 29 to May 1, 1997.
188. **Rickman, J.** and **V.P. Aneja**, "3-Dimensional Video Interpretation of Ozone Process Data," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, April 29 to May 1, 1997.
189. **Li, Y.**, J. Brittig, J. Rickman, D.S. Kim, W.P. Robarge, and **V.P. Aneja**, "Measurement of nitrogen oxides emission from intensively managed agricultural soil in North Carolina," International Symposium on Measurements of Toxic and Related Air Pollutants, Research Triangle Park, NC, April 29-May 1, 1997.
190. **Aneja, V.P.**, P. Roelle, and W. Robarge, "Contribution of Biogenic Nitric Oxide in Urban Ozone: Raleigh, NC as a Case Study," 90th Annual Meeting of Air and Waste Management Association, Toronto, Canada, June 8-13, 1997.
191. **Das, M.** and **V.P. Aneja**, "Seasonal trends in C₂-C₅ Non Methane Hydrocarbons and Isoprene Measured at Eight Rural Sites in the Southeastern United States," 90th Annual Meeting of Air and Waste Management Association, Toronto, Canada, June 8-13, 1997.

192. **Aneja, V.P.**, "Atmospheric Nitrogen Compounds: Emissions, Transport, Transformation, Deposition, and Assessment," Animal and Poultry Waste Management Center, North Carolina State University, Raleigh, NC, August 18, 1997.
193. **Li, Y.** and **V.P. Aneja**, "Dynamic chamber measurements of emissions of NO_x from soybean agricultural soil," NOVA Workshop, U.S. Environmental Protection Agency, Research Triangle Park, NC, August 28, 1997.
194. **Kang, D.** and **V.P. Aneja**, "Flux measurements of volatile organic compounds over a soybean field," NOVA Workshop, U.S. Environmental Protection Agency, Research Triangle Park, NC, August 28, 1997.
195. **Aneja, V.P.**, "Fertilization and Air Quality", 214th American Chemical Society National Meeting, Las Vegas, NV, September 7-11, 1997.
196. Roelle, P., J. O'Connor, W. Robarge, **V.P. Aneja**, and D.S. Kim, "Characterization of Nitric Oxide Emissions from an Intensively Managed Agricultural Soil in North Carolina, U.S.A.," Fifth International Conference Air Pollution 97, Bologna, Italy, September 16-18, 1997.
197. **Aneja, V.P.**, "Sources and Fate of Atmospheric Nitrogen Compounds," America's Clean Water Foundation, Washington, DC 20013, October 15, 1997.
198. **Aneja, V.P.**, Y. Li, J. Walker, **J.P. Chauhan**, G. Murray, and R. McCulloch, "Measurement of ammonia emissions from animal operation in North Carolina, U.S.A." Air and Waste Management Association International Symposium, The Emission Inventory: Planning for the Future, Research Triangle Park, NC, October 28-30, 1997.
199. **Aneja, V.P.**, "Atmospheric emissions, transport, transformation, and deposition of nitrogen compounds in the Neuse River Watershed," Water Resources Research Institute, Raleigh, NC, November 17, 1997.
200. **Aneja, V.P.** and G. Murray, "Sources and fate of atmospheric nitrogen compounds," Nutrients in the Neuse River: Working Towards Solutions, New Bern, NC, December 8-9, 1997.
201. **Aneja, V.P.**, S.P. Arya, W.P. Robarge, B. Gay, C. Geron, T. Pierce, P. Finkelstein, T. Ellested, J. Clarke, D. Delany, M. Wesely, W. Gao, T. Meyers, W. Luke, B. Hicks, J.S. Levine, E. Winstead, and B. Doddridge, "An Overview of Project NOVA 'Natural Emissions of Oxidant Precursors: Validation of Techniques and Assessment'", Fall American Geophysical Union Meeting, San Francisco, CA, December 8-12, 1997.
202. **Gao, W.**, M.L. Wesely, D.R. Cook, R.L. Hart, T.J. Martin, B.G. Doddridge, W. Ball, T.P. Meyers, M.E. Hall, W.T. Luke, A.C. Delany, T. Pierce and **V.P. Aneja**, "Potential Effects of Air Chemistry and Canopy Uptake on Surface NO_x Fluxes Associated with Soil NO Emission," Fall American Geophysical Union Meeting, San Francisco, CA, December 8-12, 1997.

203. Li, Y., J. Brittig, J. Rickman, D.S. Kim, W.P. Robarge, S.P.S. Arya and **V.P. Aneja**, "Measurement of Nitrogen Oxides Emissions From Soybean Fields Using Dynamic Chamber Technique," Fall American Geophysical Union Meeting, San Francisco, CA, December 8-12, 1997.
204. Levine, J.S., E.L. Winstead, W.P. Robarge and **V.P. Aneja**, "Simultaneous Measurements of Biogenic Soil Emissions of Nitric Oxide and Nitrous Oxide From Fertilized Fields During NOVA-95 and 96," Fall American Geophysical Union Meeting, San Francisco, CA, December 8-12, 1997.
205. Kang, D., **V.P. Aneja**, L. Simon, R. Seila and T. Meyers, "Measurements of Hydrocarbon Air-Surface Exchange Rates Over Soybean," Fall American Geophysical Union Meeting, San Francisco, CA, December 8-12, 1997.
206. Delany, A.C., **V.P. Aneja**, S.P. Arya, W.P. Robarge, Y. Li, W. Gao, M.L. Wesely, D.R. Cook, R.L. Hart, T.J. Martin, B.G. Doddridge, W. Ball, J.S. Levine, E. Winstead, W.T. Luke, K.L. Civerolo, T.P. Meyers, M.E. Hall, J.F. Clarke, T.G. Ellestad, P.L. Finkelstein, B.W. Gay, C. Geron and T. Pierce, "On the Compliance of the Fluxes of Oxides of Nitrogen Determined by Enclosure and by Micrometeorological Methodologies," Fall American Geophysical Union Meeting, San Francisco, CA, December 8-12, 1997.
207. Aneja, V.P., "Sources and Fate of Atmospheric Nitrogen Compounds," College of Agriculture and Life Sciences, Waste Management Seminar Series, North Carolina State University, March 13, 1998.
208. Aneja, V.P. and G. Murray, "An Overview of program GNATS (Geoionic Nutrient and Trace Gas Study), "International Nitrogen Conference, the Confer-N-s, Noordwijkerhout, The Netherlands, March 23-27, 1998.
209. **Aneja, V.P.**, L. Harper, R. McCulloch, M. Paerl, W. Robarge, W. Showers, and L. Todd, "Emission, Transport, Transformation, and Deposition of Atmospheric Nitrogen Compounds in North Carolina," International Nitrogen Conference, the Confer-N-s, Noordwijkerhout, The Netherlands, March 23-27, 1998.
210. McCulloch, R.B., G.S. Few, G.C. Murray and **V.P. Aneja**, "Analysis of Ammonia, Ammonium Aerosols and Acid Gases in the Atmosphere at a Commercial Hog Farm in Eastern North Carolina, USA," International Nitrogen Conference, the Confer-N-s, Noordwijkerhout, The Netherlands, March 23-27, 1998.
211. Aneja, V.P., P. Roelle and W.P. Robarge, "Characterization of Biogenic Nitric Oxide Source Strengths in the Southeast United States," , International Nitrogen Conference, the Confer-N-s, Noordwijkerhout, The Netherlands, March 23-27, 1998.
212. Aneja, V.P., "Atmospheric Ammonia Emissions and Fate in Eastern North Carolina," Annual North Carolina Water Resources Research Conference, North Carolina State University, Raleigh, NC, April 1, 1998.

213. Nelson, B.W., D. Kang and **V.P. Aneja**, "Measurements and Analysis of Non-Methane Hydrocarbons in the Rural Southeast United States," The Seventh Annual NC State University Undergraduate Research Symposium, The McKimmon Center, Raleigh, NC, April 23, 1998.
214. **Aneja, V.P.**, "Mt. Mitchell, NC, Chemical and Physical Research, 30th Annual Air Pollution Workshop, Appalachian State University, Boone, NC, April 20-23, 1998.
215. **Aneja, V.P.**, "Biogenic nitrogen oxides emissions in the Southeastern U.S. and regional ozone," Wadsworth Center, Albany, NY, May 7, 1998.
216. **Aneja, V.P.**, "Ammonia Chemistry in the Atmosphere, Deposition Velocity and Life Times," North Carolina Atmospheric Nitrogen Science Team Meeting, Mt. Olive, NC, May 28, 1998.
217. Walker, J. and **V.P. Aneja**, "Ammonia Wet Deposition and Transport Model," North Carolina Atmospheric Nitrogen Science Team Meeting, Mt. Olive, NC, May 28, 1998.
218. **Aneja, V.P.**, "Atmospheric nitrogen compounds in North Carolina," Save our State Forum on Hog Waste and Environmental Quality in North Carolina, Raleigh, NC, June 11, 1998.
219. **Aneja, V.P.**, P.A. Roelle, J.R. O'Connor, and W.P. Robarge "Biogenic nitric oxide source strength in the Southeast United States," 91st Annual Meeting of Air and Waste Management Association, San Diego, CA, June 14-18, 1998.
220. **Aneja, V.P.**, S.P. Arya, W. Robarge, B. Gay, C. Geron, T. Pierce, P. Finkelstein, T. Ellestad, J. Clarke, T. Delaney, M. Wesely, W. Gao, T. Meyers, W. Luke, B. Hicks, J.S. Levine, E. Winstead, and B. Doddridge, "Natural emissions of Oxidant precursors: Validation of techniques and Assessment (NOVA) Project Results and Analysis," International Symposium on Global Atmospheric Chemistry, Seattle, WA, August 19-25, 1998.
221. Li, Y. and **V.P. Aneja**, "Modeling Nitric Oxide Emissions from Agricultural Soils," EPA-AWMA International Symposium on the Measurement of Toxic and Related Air Pollutants, Cary, NC, September 1-3, 1998.
222. Kang, D., B.W. Nelson, **V.P. Aneja** and J.D. Ray, "Non-Methane Hydrocarbons in the Rural Southeast United States," EPA-AWMA International Symposium on the Measurement of Toxic and Related Air Pollutants, Cary, NC, September 1-3, 1998.
223. **Aneja, V.P.**, J.P. Chauhan, B. Bunton, B.P. Malik, J. Walker, Y. Li, G. Murray and R. McCulloch, "Ammonia Emissions from Swine Waste Operations in North Carolina," EPA-AWMA International Symposium on the Measurement of Toxic and Related Air Pollutants, Cary, NC, September 1-3, 1998.

224. **Aneja, V.P.**, “Human Alterations of the Nitrogen Cycle in North Carolina: Causes and Consequences,” Pamlico-Tar River Foundation Annual Meeting, Washington, NC, September 15, 1998.
225. **Aneja, V.P.**, “Looking Back, Looking Forward,” Research Triangle Park Chapter, Air & Waste Management Association, Research Triangle Park, NC, September 16, 1998.
226. **Aneja, V.P.**, “Measurements of ammonia emissions from swine lagoons using dynamic chamber system,” Ammonia Emissions Intercomparison Meeting, North Carolina State University, Raleigh, NC, October 1, 1998.
227. **Aneja, V.P.**, “Intensive Livestock Operations and Air Quality in North Carolina,” Presentation to Sec David Bruton, Raleigh, NC, October 8, 1998.
228. **Aneja, V.P.**, “Characterization of biogenic oxides of nitrogen emissions in Continental North America during the winter/spring transition,” Workshop on Tropospheric Ozone Production about the Spring Equinox, National Center for Atmospheric Research, Boulder, CO, October 19-22, 1998.
229. **Walker, J.T.** and **V.P. Aneja**, “Atmospheric transport and wet deposition of ammonium in North Carolina,” 20th Annual Technical Meeting, The National Atmospheric Deposition Program (NADP), St. Petersburg, FL, October 26-29, 1998.
230. **Aneja, V.P.**, “Emissions of Atmospheric Nitrogen Compounds and its Fate in North Carolina”, Tar-Pam River Basin Atmospheric Emissions Stockholders Public Meeting, Rocky Mount, NC, November 24, 1998
231. **Aneja V.P.**, “Emerging Environmental Health Issues”, Annual State Director’s Conference “The Changing Face of Public Health”, NC Department of Health and Human Service, Raleigh, N.C., January 21-22, 1999
232. **Aneja, V.P.**, J.P. Chauhan, J. Walker and D. Nelson, “Ammonia emission and deposition,” Animal Waste Management Symposium, North Carolina State University, Raleigh, NC, January 27-28, 1999.
233. **Aneja V.P.**, “Nitrogen Research Program at NC State University”, A Resources Research Consortium Symposium, Centennial Campus, North Carolina State University, Raleigh NC, February 10, 1999.
234. **Aneja V.P.**, “Atmospheric monitoring of emission and deposition of nitrogen”, US EPA Multi-Media Modeling Workshop, Research Triangle Park, NC, March 23-24, 1999.
235. **Aneja V.P.**, J.P. Chauhan and J. Walker, “Characterizations of ammonia emissions in North Carolina from swine Lagoons”, Annual North Carolina Resources Research Conference, Raleigh, NC, March 25, 1999.

236. **V.P. Aneja**, “Overview of Atmospheric Nitrogen Compounds,” International Workshop on Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition and Assessment, Chapel Hill, NC, June 7-9, 1999.
237. **V.P. Aneja**, B. Bunton, J.P. Chauhan, B.P. Malik, J. Walker, Y. Li, and George C. Murray, Jr., “Ammonia emissions from swine waste operations in North Carolina,” International Workshop on Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition and Assessment, Chapel Hill, NC, June 7-9, 1999.
238. Stephen G. Few, Nitin Agrawal, Ronald B. McCulloch, **Viney P. Aneja** and P. Roelle, “Estimating ammonia emissions from remotely sensed data,” International Workshop on Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition and Assessment, Chapel Hill, NC, June 7-9, 1999.
239. **Viney P. Aneja**, Bok Haeng Baek, and Ronald B. McCulloch, “A neural network model to estimate ammonia in the atmosphere,” International Workshop on Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition and Assessment, Chapel Hill, NC, June 7-9, 1999.
240. Dena Nelson, John Walker and **Viney P. Aneja**, “Trends in ammonium concentration in precipitation and local ammonia emissions at a Coastal Plain site in North Carolina, USA,” International Workshop on Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition and Assessment, Chapel Hill, NC, June 7-9, 1999.
241. John Walker, **V.P. Aneja** and D. Dickey, “Source-receptor modeling of wet ammonium deposition in North Carolina, USA,” International Workshop on Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition and Assessment, Chapel Hill, NC, June 7-9, 1999.
242. Paul A. Roelle, **Viney P. Aneja**, Bruce Gay, Tom Pierce, and Chris Geron, “Seasonal variations of nitric oxide fluxes from diverse physiographic agricultural soils in North Carolina,” International Workshop on Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition and Assessment, Chapel Hill, NC, June 7-9, 1999.
243. S. Pal Arya, **Viney P. Aneja**, Barry T. Peterson, and Nitin Agrawal, “Measurement of ammonia/ammonia flux and dry deposition velocity above natural surfaces in Eastern North Carolina,” International Workshop on Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition and Assessment, Chapel Hill, NC, June 7-9, 1999.
244. B.P. Malik, **V.P. Aneja**, and J.H. Overton, “Coupled transport and chemical reaction model for ammonia emission at waste treatment lagoon-atmospheric interface,” International Workshop on Atmospheric Nitrogen Compounds II: Emissions, Transport, Transformation, Deposition and Assessment, Chapel Hill, NC, June 7-9, 1999.

245. Aneja, V.P., "Biogenic Nitrogen Oxide Emissions, Fertilization and Regional Ozone," Istituto Sperimentale Per La Nutrizione Delle Piante, Rome, Italy, June 15, 1999.
246. Aneja V.P., P. Roelle, and J. Pierce, " Biogenic air pollution", International Conference on Microbiology and Conservation, Firenze, Italy, June 16-20, 1999.
247. Roelle, P.A., **V.P. Aneja**, and W.P. Robarge, "Seasonal variations of nitric oxide fluxes from diverse physiographic agricultural soils in North Carolina," 92nd Annual Meeting of Air and Waste Management Association, St. Louis, MO, June 20-24, 1999.
248. Aneja, V.P., "Atmospheric Nitrogen Compounds in North Carolina and its Fate," U.S. Environmental Protection Agency, Research Triangle Park, NC, July 13, 1999.
249. Aneja, V.P., "Air Pollution Impact of Intensive Livestock Operations," 1st Annual Public Health Policy Symposium on Public Health Impact of Intensive Livestock Operations, Raleigh, NC, July 15-16, 1999.
250. Roelle, P.A., **V.P. Aneja**, W.P. Robarge, B. Gay, T. Pierce, and C. Geron, "Seasonal variations of nitric oxide fluxes from diverse physiographic agricultural soils in North Carolina," Sixth Scientific Conference on the International Global Atmospheric Chemistry Project (IGAC), Bologna, Italy, September 13-17, 1999.
251. Aneja, V.P., "Summary of Recent Findings on Ammonia Emissions, Deposition and Transformations from Pork Operations in North Carolina," Annual Conference of the South Atlantic States Section Air & Waste Management Association, Virginia Beach, VA, September 28-29, 1999.
252. Aneja, V.P., "Intensive Livestock Operations and Air Quality in North Carolina," presentation to the U.S. Environmental Protection Agency's Assistant Administrator, Office of Water Quality, Washington, D.C., October 22, 1999.
253. Walker, J., **V.P. Aneja**, and D. Nelson, "Trends in ammonium concentrations in precipitation and atmospheric ammonia emissions at a Coastal Plain site in North Carolina, USA," 22nd Annual National Atmospheric Deposition Program (NADP) Meeting, Sacramento, CA, October 25-28, 1999.
254. Aneja, V.P., "Changing Air Quality in North Carolina Associated with Intensively Managed Animal Agriculture," USDA-Agricultural Air Quality Task Force, Research Triangle Park, NC, November 10, 1999.
255. Kang, D., **V.P. Aneja**, R. Seila, W. Lonneman, and T. Meyers, "Air-Surface Exchange Rates of Hydrocarbons over Soybean," 1999 AGU Fall Meeting, San Francisco, CA, December 13-17, 1999.
256. Arya, S.P., **V.P. Aneja**, B.T. Peterson, N. Agrawal, and D. Nelson, "An Experimental Study of the Emission and Dry Deposition of Ammonia over Natural Surfaces in Eastern North Carolina," 80th American Meteorological Society Annual Meeting and

11th Joint Conference on Applications of Air Pollution Meteorology, Long Beach, CA, January 9-14, 2000.

257. **Aneja, V.P.**, "Air Quality Changes Associated with Hurricane Floyd", NC Department of Health and Human Services Annual NC State Health Director's Conference, Raleigh, NC, January 20-21, 2000.
258. **Aneja, V.P.**, "Update on research on the Atmospheric Deposition of Nitrogen", Testimony to the Environmental Review Commission, General Assembly of North Carolina, Raleigh, NC, February 17, 2000.
259. **Yablonsky, R.M.** and **V.P. Aneja**, "Danger in New Delhi: Understanding when and why Ambient Carbon Monoxide in New Delhi, India Exceeds the National Ambient Air Quality Standard", 2000 North Carolina State University Undergraduate Research Symposium, Raleigh, NC, April 27, 2000.
260. **Kang, D.**, **V.P. Aneja**, R.G. Zika and J.D. Ray, "Non-methane Hydrocarbons in Big Meadows, Shenandoah National Park, VA, AGU 2000 Spring Meeting, Washington, D.C., May 30-June 2, 2000.
261. **Aneja, V.P.**, P.A. Roelle, S. Baker, Q. Tong, N. Watkins, and R. Yablonsky, "Measurements and Analysis of Criteria Pollutants in New Delhi, India, and the National Ambient Air Quality Standard," Workshop on Air Quality Index and Pollution Inventory for the City of Delhi, New Delhi, India, June 6-8, 2000.
262. **Roelle, P.A.**, **V.P. Aneja**, and J. Peirce, "Characterization of Nitric Oxide Emissions from Agricultural Soils Amended with Biosolids", 93rd Annual Meeting of Air and Waste Management Association, Salt Lake City, UT June 18-23, 2000.
263. **Aneja, V.P.**, "Environment, Ecology, and Health: One North Carolina – Our Common Future", Ecology and Health Conference 2000, Raleigh, NC, June 28-29, 2000.
264. **Aneja, V.P.**, "B.P. Malik, Q. Tong, D. Kang, and J.H. Overton, "Measurement and Modeling of Ammonia Emissions at Waste Treatment Lagoon – Atmospheric Interface", The Sixth International Conference on Air-Surface Exchange of Gases and Particles, Edinburgh, UK, July 3-7, 2000.
265. **Roelle, P.A.**, **V.P. Aneja**, and J. Peirce, "Nitric Oxide Emissions form Soils Amended with Municipal Waste Biosolids", The Sixth International Conference on Air-Surface Exchange of Gases and Particles, Edinburgh, UK, July 3-7, 2000.
266. **Aneja, V.P.**, "Measurement and Modeling of Nitrogen Compound Emissions During Biogeochemical cycling", Royal Meteorological Society, 150th Anniversary Conference, Cambridge, UK, July 10-14, 2000.
267. **Roelle, P.A.**, and **V.P. Aneja**, "Measurement and Modeling of Biogeochemical Cycling of Nitrogen Compounds", Royal Meteorological Society, 150th Anniversary Conference, Cambridge, UK, July 10-14, 2000.

268. Aneja, V.P., “Environmental Impacts of an Intensive Livestock Operation: Air Quality Impacts,” Intensive Livestock Operations (ILOs) Workshop, Wilmington, NC, August 2-4, 2000.
269. Baek, B., V.P. Aneja, R.B. McCulloch, G. C. Murray, “Measurement and Analysis of Ammonia, Acid Gases, and Fine Particles in the Atmosphere at North Carolina Commercial Hog Farm”, International Symposium on the Measurement of Toxic and Related Air Pollutants, Research Triangle Park, NC, September 12-14, 2000.
270. Nelson, D.R., V.P. Aneja, and J.H. Walker, “Trends in Agricultural Ammonia Emissions and Ammonium Deposition in the Southeastern United States”, International Symposium on the Measurement of Toxic and Related Air Pollutants, Research Triangle Park, NC, September 12-14, 2000.
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378. **Aneja, V.P.**, “Characterization and Fate of Ammonia and Hydrogen Sulfide from Animal Feeding Operations: Their Emissions, Transport, and Transformations”, USDA – NRI Air Quality Annual Program Directors Meeting, Washington D.C., July 17, 2007.
379. **Aneja, V.P.**, “National Workshop on Agricultural Air Quality”, USDA – NRI Air Quality Annual Program Directors Meeting, Washington D.C., July 17, 2007.

380. **Aneja, V.P.**, and J. Blunden, "The Global Sulphur Cycle", The Topsøe Catalysis Forum 2007 - Sulphur Management Conference, Havreholm, Denmark, August 22 – 24, 2007.
381. **Aneja, V.P.**, S. Goetz, and Y. Zhang, "Measurements, Analysis, and Modeling of Fine Particulate Matter in High Ammonia Region of North Carolina, U.S.A.", International Conference Particulate Matter in and from Agriculture, Braunschweig, Germany, September 3-4, 2007.
382. **Aneja, V.P.**, and S.P. Arya, "Agricultural Air Quality", North Carolina American Meteorological Society, Raleigh, NC, March 20, 2008.
383. **Aneja, V.P.**, "Climate Change: Importance to North Carolina", Take Action Tour on Climate Change, Wilmington, NC, May 3, 2008.
384. **Aneja, V.P.**, "Integrated Nitrogen Committee", USDA Agricultural Air Quality Task Force, Salt Lake City, Utah, May 13-16, 2008.
385. **Aneja, V.P.**, S.P. Arya, I. Rumsey, and C. Williams, "Characterizing Ammonia Emissions from Hog Farm Technologies, Part 1", Mitigating Air Emissions from Animal Feeding Operations, Des Moines, Iowa, May 19-21, 2008.
386. **Aneja, V.P.**, S.P. Arya, I. Rumsey, and C. Williams, "Characterizing Ammonia Emissions from Hog Farm Technologies, Part 2", Mitigating Air Emissions from Animal Feeding Operations, Des Moines, Iowa, May 19-21, 2008.
387. Blunden, J., I. C. Rumsey, **V.P. Aneja**, and **K.M. James**, "Measurement and modeling of ammonia and sulfur compound emissions from a commercial swine finishing operation in North Carolina", USDA/EPA Agricultural Air Quality Workshop, USEPA RTP Campus, July 23–24, 2008.
388. **Aneja, V.P.**, J. Blunden P. Roelle, W.H. Schlesinger, R. Knighton, D. Niyogi, W. Gilliam, G. Jennings, and C. Duke, "Workshop on Agricultural Air Quality: State of the Science", USDA/EPA Agricultural Air Quality Workshop, USEPA RTP Campus, July 23–24, 2008.
389. **Aneja, V.P.**, G. Jennings, J.C. Fountain, Y. Zhang, S.P. Arya, W. Gilliam, D. Niyogi, and P. Westerman, "Characterization and Fate of Ammonia and Hydrogen Sulfide from Animal Feeding Operations: Their Emissions, Transport, Transformation, Deposition, and Impact on Fine Particulate Matter (PM_{fine})", United States Department of Agriculture (USDA) National Research Initiative (NRI) Project Directors Workshop, Durham, North Carolina, July 23-24, 2008.
390. **Gore, M.**, D.Q. Tong, **V.P. Aneja**, and M. Houyoux, "Modeling and Measurement of Ammonia and PM_{2.5} Concentrations Associated with Emissions from Agriculture", 7th Annual CMAS Conference, Chapel Hill, North Carolina, October 6-8, 2008.

391. Rumsey, I.C., **V.P. Aneja**, and W.A. Lonneman, "Characterizing Sulfur Compound Emissions from a Hog Farm in Eastern North Carolina", Air Waste and Management Association (AWMA) Symposium on Air Quality Measurement and Technology, Chapel Hill, North Carolina, November 3-6, 2008.
392. Gore, M., **V.P. Aneja**, S. Konarik, and J. Blunden, "An Apparent Paradox: Agricultural Ammonia Emissions and the National Atmospheric Deposition Network", Symposium on Air Quality Measurement Methods and Technology, Chapel Hill, North Carolina, November 3-6, 2008.
393. **Aneja, V.P.**, W. H. Schlesinger, and J.W. Erisman, "Agricultural Air Quality: Research, Policy and Regulations", the International Conference on "Challenges and Opportunities in Agrometeorology" INTROMET2009, New Delhi-110012, India, February 23-25, 2009.
394. **Aneja, V.P.**, "Climate Change: Importance to North Carolina", Daniels Science Symposium, Raleigh, NC, March 18, 2009.
395. **Aneja, V.P.**, 2009, "Characterization of Particulate Matter (PM₁₀) in Roda, Virginia", Virginia State Air Pollution Control Board, Richmond, VA, April 24, 2009.
396. **Aneja, V.P.**, 2009. National Workshop on Agricultural Air Quality. USDA-CREES National Research Initiative Air Quality Program Project Directors Meeting, Kansas City, MO, June 3, 2009.
397. Rumsey, I.C., **Aneja, V.P.**, Lonneman, W.A., 2009. Characterizing sulfur and non-methane volatile organic compound emissions from concentrated animal feeding operations in North Carolina. Air Waste and Management 102nd Annual Conference and Exhibition, Detroit, MI, June 16-19, 2009.
398. **Aneja, V.P.**, 2009. Quantifying Emissions of Ammonia for Air Quality Analysis. MARAMA MANE-VU 2009 Science Meeting Total Reactive Nitrogen: Regional Haze Impacts and Mitigation Options, Baltimore, MD, July 28-29, 2009.
399. **Aneja, V.P.**, 2009. The Ozone Air Pollution Problem in North Carolina. Catawba College, Salisbury, NC, September 17, 2009.
400. **Aneja, V.P.**, 2009. The Global Sulfur Cycle: Global Climate and Farming Pollution. Cary Institute of Ecosystems Studies, Millbrook, NY, September 25, 2009.
401. **Aneja, V.P.**, 2009. Farming Pollution: Research, Policy, and Regulations. International Conference on "ICPSBC'09", Monterrey, Mexico, September 29, 2009.
402. **Aneja, V.P.** and M.L. Gore, "Trends in Agricultural Ammonia Emissions and Ammonium Concentrations in Precipitation over the Southeast and Midwest United States: Challenges for the Research Community", NADP Annual Meeting and Scientific Symposium, Saratoga Springs, NY, October 7-8, 2009.

403. Rumsey, I.C., **Aneja, V.P.**, Lonneman, W.A., 2009. Measurement and modeling of emissions of reduced sulfur compounds from concentrated animal feeding operations. 8th Annual CMAS Conference, Chapel Hill, NC, October 19-21, 2009.
404. Gore, M.L., **V.P. Aneja**, E.J. Cooter, R.L. Dennis, and J.E. Pleim, "Assessing bi-directional ammonia transport using the Community Multi-Scale Air Quality (CMAQ) Model", 8th Annual CMAS Conference, Chapel Hill, North Carolina, October 19-21, 2009.
405. Gore, M.L., **V.P. Aneja**, E.J. Cooter, R.L. Dennis, and J.E. Pleim, "Ammonia Emissions in the U.S.: Assessing the role of bi-directional ammonia transport using the Community Multi-Scale Air Quality (CMAQ) Model", Workshop on Nitrogen Deposition, Critical Loads and Biodiversity, Edinburgh, UK, November 16-18, 2009.
406. **Aneja, V.P.**, 2009. Analysis of Current Efforts to Study and Remediate Particulate Matter (PM₁₀) in Roda, Virginia. State Air Pollution Control Board, Richmond, VA, November 20, 2009.
407. **Aneja, V.P.**, 2009. Farming Pollution: Research, Policy, and Challenges. U.S. Environmental Protection Agency, Research Triangle Park, NC, December 16, 2009.
408. Gore, M.L., **V.P. Aneja**, E.J. Cooter, R.L. Dennis, and J.E. Pleim, "Ammonia Emissions in the U.S.: Assessing the role of bi-directional ammonia transport using the Community Multi-Scale Air Quality (CMAQ) Model", International Conference on Environmental Health and Technology, Kanpur, India, March 15-17, 2010.
409. **Aneja, V.P.**, 2010. "Coal Dust Atmospheric Impact on Appalachian Communities", Chancellor's Energy Task Force, UNC Chapel Hill, NC, April 14, 2010.
410. **Aneja, V.P.**, 2010. "Ozone and PM_{fine} in Urban and Rural Areas: Measurements and Modeling". Center of Excellence in Environmental Studies, Jeddah, Saudi Arabia, April 26, 2010.
411. **Aneja, V.P.**, 2010. "Ozone Air Pollution and Health Effects". Mobilizing NC: Where Air Quality, Energy and Transportation Meet McKimmon Center, Raleigh, NC, May 26, 2010.
412. Rumsey, I.C., **V.P. Aneja**, W.A. Lonneman, 2010. "Measurement and Analysis of Non-Methane Volatile Organic Compounds Emissions from Concentrated Animal Feeding Operations in North Carolina". Air Waste and Management 103rd Annual Conference and Exhibition, Calgary, Canada, June 22-25, 2010.
413. Gore, M.L., E.J. Cooter, R.L. Dennis, J.E. Pleim, J.O. Bash, and **V.P. Aneja**, 2010. "Assessing the Impact of Bi-directional Ammonia Transport on Nitrogen Fertilizer Emissions and Fate in the Eastern U.S.", 9th Annual CMAS Conference, Chapel Hill, NC, October 11-13, 2010.

414. **Aneja, V.P.**, I. C. Rumsey, and W. A. Lonneman, 2010. "Characterizing Particulate Matter and Non-Methane Volatile Organic Compounds from Concentrated Animal Feeding Operations", Evaluating the Health Effects to Local Communities of Confined Animal Feeding Operations (CAFOs), Raleigh, NC, November 11, 2010
415. **Aneja, V.P.**, 2010. "VOCs Exchange at the Air-Sea Interface". Twenty-Fourth Annual D/UNCOC Symposium, Beaufort, N.C., November 19-20, 2010.
416. **Pillai P.**, H.N. Yoo, J.T. Walker, A. Khlystov, and **V. P. Aneja**, 2010. "New Particle Formation Events at Duke Forest, North Carolina: Relation to Meteorological and Chemical Conditions," 2010 AGU Fall Meeting, San Francisco, CA, December 13-17, 2010.
417. **Aneja, V.P.**, 2010. "Agricultural Ammonia Atmospheric Pollution: Research, Policy, and Challenges", 5th International Nitrogen Conference, New Delhi, India, December 3-7, 2010.
418. **Aneja, V.P.**, 2010. "Ozone Air Pollution and Impacts", Lucknow, India, December 9, 2010.
419. **Aneja, V.P.**, 2010. "Agricultural Air Quality: Research, Policy and Regulations", Fourth International Conference on Plants & Environmental Pollution, ICPEP-4, Lucknow, India, December 8-11, 2010.
420. **Sharma, M.**, and **V. P. Aneja**, 2011. "GIS-based Atmospheric emission inventory of reactive nitrogen in India", US-India Conference-cum-Workshop on Air Quality and Climate Research, Hyderabad, India, March 14-16, 2011.
421. **Aneja, V.P.**, 2011. "Agricultural Air Quality", US-India Conference-cum-Workshop on Air Quality and Climate Research, Hyderabad, India, March 14-16, 2011.
422. **Gore, M. L.**, E. J. Cooter, R. L. Dennis, J. E. Pleim, J. O. Bash, and **V. P. Aneja**, 2011. "Assessing the Impact of Bi-directional Ammonia Transport on Nitrogen Fertilizer Emissions and Fate in the Eastern U.S.", NCSU Graduate Symposium, Raleigh, North Carolina, March 21, 2011.
423. **Aneja, V.P.**, 2011. "Fundamentals of Air Quality and Atmospheric Chemistry Modeling", US-India Conference-cum-Workshop on Air Quality and Climate Research, Hyderabad, India, March 17-24, 2011.
424. **Aneja, V.P.**, 2011. "Biogeochemistry of Agricultural Airborne Particulate Matter (PM): Sources, Transformation, Transport, and Fate", Bouyoucos Conference on Synchrotrons for Soils, Estes Park, Colorado, August 1- 3, 2011.
425. **Aneja, V.P.**, 2011. "US-India Collaboration on Air Quality and Climate Research and Education", US-India Air Quality and Climate Research Workshop, Hyderabad, India, September 12-15, 2011.

426. **Aneja, V.P.**, 2011. "Measurement, Modeling, and Analysis of Air Quality and Climate Change: Sources, Transformation, Transport, and Fate", US-India Air Quality and Climate Research Workshop, Hyderabad, India, September 12-15, 2011.
427. **Aneja, V.P.**, I.C. Rumsey, and W. A. Lonneman, 2011. "Characterization of Non-Methane Volatile Organic Compounds Emissions from a Swine Concentrated Animal Feeding Operation", 2011 AGU Fall Meeting, San Francisco, California, December 5-9, 2011.
428. **Aneja, V.P.**, 2011. "US-India Collaborative Science, Research, and Education: Air Quality and Climate Change" North Carolina State University, Raleigh, NC 27695, December 16, 2011.
429. **Pillai, P., V.P.Aneja**, J.T.Walker, and A.Khlystov, 2012. "Anthropogenic and Natural Influences on Particle Nucleation Event Days at a Forest Site in the Southeast U.S.", Joint US EPA & NCSU Symposium, North Carolina State University, Raleigh, NC, May 15, 2012.
430. **Pillai, P.**, A.Khlystov, J.T.Walker, and **V.P.Aneja**, 2012. "Relationships between particle nucleation and radiative forcing at a forest site in the Southeast US", 16th International Symposium for the Advancement of Boundary-Layer Remote Sensing, Boulder, Colorado, June 5-8, 2012.
431. **Aneja, V.P.**, 2012. "Agricultural Air Quality: Research, Policy, and Regulations", Tsinghua University, Beijing, China, July 16, 2012.
432. **Aneja, V.P.**, 2012. "Agricultural Air Quality", Northeast Institute of Geography and Agroecology (NEIGAE), Chinese Academy of Sciences (CAS), Changchun, China, July 18, 2012.
433. **Pillai P., V. P. Aneja**, J.T. Walker, and A. Khlystov, 2012. "Satellite derived Aerosol Direct Radiative Forcing on Nucleation Days at the Duke Forest Site in North Carolina, USA", Marine, Earth, and Atmospheric Sciences (MEAS) and the Forestry and Environmental Resources (FER) Graduate Student Symposium, North Carolina State University, Raleigh, NC, August 13, 2012.
434. **Pillai, P., V.P.Aneja**, J.Walker, and A.Njegovan, 2012. "Nitrous Oxide Emissions from Biofuel Crops and its Parameterization in the EPIC Biogeochemical Model", 244 American Chemical Society National Meeting, Philadelphia, PA, August 19-23, 2012.
435. **Pillai P., V. P. Aneja**, A. Njegovan, J.T. Walker, E. Cooter, and D. Kirchgessner, "Nitrous Oxide Emissions from Biofuel Crops", Sci-Mix at 244 American Chemical Society National Meeting, Philadelphia, PA, August 20, 2012.
436. **Pillai P., V. P. Aneja**, A. Njegovan, J.T. Walker, E. Cooter, and D. Kirchgessner, "Nitrous Oxide Emissions from Biofuel Crops and its Parameterization in the EPIC Biogeochemical Model", College of Physical and Mathematical Sciences Access Day, Raleigh, NC, September 6, 2012.

437. Rasheed, A., V.P. Aneja, and A. Aiyyer, 2012. "Characterization of Fine Particulate Matter (PM_{fine}) in Urban Areas of Pakistan", PAMS Access Day, College of Physical and Mathematical Sciences, North Carolina State University, Raleigh, NC, September 6, 2012.
438. Pillai, P., V.P.Aneja, and J.Walker, 2012. "Parameterizations of Nitrous Oxide and Nitrogen Oxide Emissions from Biofuel Crops for use in Air Quality and Climate Change Modeling", 6th Graduate Climate Conference, University of Washington, Pack Forest, WA, October 26-28, 2012.
439. Pillai P., V. P. Aneja, J.T. Walker, and A. Khlystov, 2012. "Understanding the Aerosol Particle Nucleation and the Aerosol Direct Radiative Forcing at A Forest Site in the South East United States", American Chemical Society Southeastern Regional Meeting, Raleigh, North Carolina, Nov 14 - 17, 2012.
440. Rasheed, A., V.P. Aneja, and A. Aiyyer, 2012. "Characterization of Fine Particulate Matter (PM_{fine}) in Urban Areas of Pakistan-An Observational Based Analysis", Southeastern Regional Meeting of the American Chemical Society, Raleigh, NC, November 16, 2012.
441. Aneja, V.P., 2012. "Agricultural Air Quality: Emissions, Consequences, and Management", Southeastern Regional ACS Meeting, Raleigh, NC, November 16, 2012.
442. Aneja, V.P., 2013. "UNC-India Summit: Environment & Energy Issues", UNC General Administration, Chapel Hill, NC, 30 January 2013.
443. Pillai P., V. P. Aneja, and J.T. Walker, 2013. "Nitrous Oxide Emissions from Biofuel Crops and its parameterization in the EPIC biogeochemical model", Graduate Research Symposium, North Carolina State University, Raleigh, North Carolina, March 19, 2013.
444. Aneja, V.P., "Coupling of Air Quality and Climate Change in India", Conference on Environment Across the Disciplines: Perspectives from India and Beyond, April 18-19, 2013, Raleigh, NC.
445. Aneja,V.P., "Agricultural Air Quality: Research and Challenges", Seminar, Wadsworth Center, Albany, New York, April 25, 2013.
446. Rasheed, A., V.P. Aneja, A. Aiyyer, and U. Rafique, 2013, "Ambient Air Quality of Islamabad: A Monitoring Based Analysis", Workshop on Changing Chemistry in Changing Climate: Monsoon (C4), April 30 –May 3, 2013, IITM Pune, India.
447. Rasheed, A., V.P. Aneja, A. Aiyyer, and U. Rafique, 2013, "Ambient Air Quality of Islamabad: A Monitoring Based Analysis", Atmospheric Composition and the Asian Summer Monsoon" at Kathmandu, Nepal, June 9-12, 2013.

448. Pillai P., J.T. Walker, A. Khlystov, and **V. P. Aneja**, “Formation and Growth of Atmospheric Particles at a Forest Site in the Southeast US”, 19th international conference on nucleation and atmospheric aerosols, Fort Collins, Colorado, June 24-28, 2013.
449. Aneja, V.P., and Battye, W. “Ammonia Emissions: Current State of Inventories”, MARAMA Workshop, Looking Ahead: Forces Shaping Future Emissions & Air Quality, Charlottesville, VA, July 23-24, 2013.
450. Aneja, V.P., “Agricultural Air Quality: Measurements, Monitoring, and Modeling”, National Environmental Monitoring Conference, San Antonio, TX, August 5-9, 2013.
451. Aneja, V.P., “Agricultural Air Quality Measurements and Modeling: Research and Challenges”, Traversing New Terrain in Meteorological Modeling, Air Quality, and Dispersion, UC Davis, September 10 -12, 2013.
452. Aneja, V.P., and Battye, W. “Ammonia Emissions State of the Science”, Scientific Symposium and Nitrogen Flux Workshop, Park City, Utah, October 8-11, 2013.
453. Aneja, V.P., “Nitrogen in the Environment”, International Research Programme in Agricultural Nitrogen (IRPAN), Rothamsted Research, Harpenden, UK, November 4-8, 2013.
454. Rasheed, A., **V.P. Aneja**, A. Ayyer, and U. Rafique, “Measurements and Analysis of Air Quality in Islamabad, Pakistan”, International Conference on Environmental Issues of Sindh and Remedies (ICEISR 2014), Khairpur, Sindh, Pakistan, April 9-10, 2014.
455. Bray, C., W. Battye, and **V.P. Aneja**. “Particle Nucleation for Varying Air Masses and Meteorological Conditions at a Forest Site in the Piedmont Region of North Carolina”, NC State University Undergraduate Research Symposium, Raleigh, NC, April 2014.
456. William Battye, Casey Bray, **Viney Aneja**, Daniel Tong, Pius Lee, Youhua Tang, 2014. “Evaluating ammonia (NH₃) predictions in the NOAA National Air Quality Forecast Capability (NAQFC) using aircraft *in situ* measurements”, Joint FRAPPE – DISCOVER-AQ Science Team Meeting, Boulder, CO, May 4-8, 2014.
457. Aneja, V.P., and Battye, W. “Agricultural Air Quality: Nitrogen Emissions and Management”, Air Pollution Workshop (APW 46) & Symposium, Guadalajara, Mexico April 6-10, 2014.
458. Rasheed, A., **V.P. Aneja**, A. Ayyer, and U. Rafique, 2014, “Ambient Air Quality Analysis in Urban Areas of Pakistan”, ICIMOD’s Second Annual Regional Atmospheric Science (SARAS) Workshop, Pokhara, Nepal. June 7-9, 2014.
459. Aneja, V.P., 2014, “Focus on India: North Carolina State University”, UNC-India Summit II, UNC General Administration, Chapel Hill, NC, June 25, 2014.

460. Aneja, V.P., 2014, “An Overview of Horizontal Hydrofracturing - Fracking”, Cumberland County Public Library & Information Center, Fayetteville, NC, October 11, 2014.
461. Rasheed, A., V. P. Aneja and U. Rafique, 2014, “Measurements and Analysis of Ambient Air Quality in Islamabad, Pakistan”, Better Air Quality (BAQ) Conference, Colombo, Sri Lanka, November 19 – 21, 2014.
462. Bray, C., W. Battye, V.P. Aneja, D. Tong, P. Lee, and Y. Tang. 2015. “Ammonia prediction by the NOAA National Air Quality Forecast Capability system using DISCOVER-AQ and CalNex2010 field campaign data”, NC State University Graduate Research Symposium, Raleigh, NC, March 2015.
463. Pillai P., V. P. Aneja, J. Walker, “Satellite Based Estimation of Shortwave Aerosol Radiative Forcing on Regional Nucleation Events at a forest site in the Southeast US”, NCSU Graduate Student Symposium, North Carolina State University, Raleigh, NC. March 25, 2015.
464. Perlmutter, G.B., G.B. Blanh, V.P. Aneja, T.R. Wentworth, H.S. Neufeld, and M.D. Lowman, 2015. “Are Roadside Forests Affected by Traffic Emissions? A study examining lichen biodiversity along I-40”, NC State University Graduate Research Symposium, Raleigh, NC, March 2015.
465. Bray, C., W. Battye, V.P. Aneja, D. Tong, P. Lee, and Y. Tang. “Ammonia prediction by the NOAA National Air Quality Forecast Capability system using DISCOVER-AQ and CalNex2010 field campaign data”, NC State University State of the Sciences Poster Session, Raleigh, NC, April 2015.
466. Aneja, V.P., 2015. “Agricultural Reactive Nitrogen and Sulfur Emissions: Challenges in a Changing Atmosphere”, Bolin Center for Climate Research, Stockholm University, Sweden, May 5, 2015.
467. Rasheed, A., V. P. Aneja and U. Rafique, 2015, “Measurements and analysis of air quality in Islamabad, Pakistan”, The Second Workshop on Atmospheric Composition and the Asian Summer Monsoon (ACAM), Bangkok, Thailand, June 8-10, 2015.
468. Rumsey, I.C., V. P. Aneja, and W. A. Lonneman, 2015, “Measurement and Modeling of Reduced Sulfur Compound Emissions from a Swine Concentrated Animal Feeding Operation”, Air, Waste and Management Association Annual Conference and Exhibition-2015, Raleigh, North Carolina, June 22-25, 2015.
469. Pillai P., V. P. Aneja, J. Walker, 2015. “Satellite Based Estimation of Shortwave Aerosol Radiative Forcing on Regional Nucleation Events at a forest site in the Southeast US”, Annual Conference, The Air & Waste Management Association (A&WMA), Raleigh, NC , June 22- 25, 2015.

470. Bray, C., W. Battye, **V.P. Aneja**, D. Tong, P. Lee, and Y. Tang, 2015. "Ammonia prediction by the NOAA National Air Quality Forecast Capability system using DISCOVER-AQ and CalNex2010 field campaign data", Annual Conference, The Air & Waste Management Association (A&WMA), Raleigh, NC , June 22- 25, 2015.
471. Mikel, D. and **V.P. Aneja**, 2015. "Measurement of Polycyclic Aromatic Hydrocarbons near a Major Roadway", Annual Conference, The Air & Waste Management Association (A&WMA), Raleigh, NC, June 22- 25, 2015.
472. Aneja, V.P., 2015. "Air Quality in North Carolina: A Changing Atmosphere", Annual Conference, The Air & Waste Management Association (A&WMA), Raleigh, NC, June 22- 25, 2015.
473. Aneja, V.P., 2015. "Agricultural Reactive Nitrogen and Sulfur Emissions: Challenges in a Changing Atmosphere", Indian Institute of Technology, Kanpur, UP, India, September 3, 2015.
474. Aneja, V.P., 2015. "The Impact of Agriculture on Air Quality and Climate: Is Nitrogen The Next Carbon?", TERI University, New Delhi, India, November 16, 2015.
475. Bray, C., W. Battye, **V.P. Aneja**, D. Tong, P. Lee, and Y. Tang. 2016. "Ammonia prediction by the NOAA National Air Quality Forecast Capability system using DISCOVER-AQ and CalNex2010 field campaign data", NASA Air Quality Applied Sciences Team (AQASt) 10th Semiannual Meeting, EPA, Research Triangle Park, January 5-7, 2016.
476. Battye, W., C. Bray **V.P. Aneja**, D. Tong, P. Lee, and Y. Tang. 2016. "Evaluating ammonia (NH₃) predictions in the NOAA National Air Quality Forecast Capability (NAQFC) using ground-based and satellite-based measurements on a national scale", NASA Air Quality Applied Sciences Team (AQASt) 10th Semiannual Meeting, EPA, Research Triangle Park, January 5-7, 2016.
477. Aneja, V.P., 2016. "The Impact of Agriculture on Air Quality and Climate: Is Nitrogen The Next Carbon?", the University of Tennessee, Knoxville, TN, College of Engineering's Distinguished Lecture Series, March 23, 2016.
478. Bray, C., W. Battye, **V.P. Aneja**, D. Tong, P. Lee, and Y. Tang. "Evaluation of the Impact of Increased Wildfires on Ammonia Emissions in the Western United States using Satellite and Ground Based Measurements", NCSU Graduate Symposium, NCSU, Raleigh, March 23, 2016.
479. Battye, W., C. Bray, **V.P. Aneja**, D. Tong, P. Lee, and Y. Tang. 2016. "Evaluating ammonia (NH₃) predictions in the NOAA National Air Quality Forecast Capability (NAQFC) using ground-based and satellite-based measurements on a national scale", NCSU Graduate Symposium, NCSU, Raleigh, March 23, 2016.

480. Bray, C., W. Battye, **V.P. Aneja**, D. Tong, P. Lee, and Y. Tang. “Evaluation of the Impact of Increased Wildfires on Ammonia Emissions in the Western United States using Satellite Measurements”, University Global Partnership Network (UGPN) Workshop on Air Quality, Climate, and Health, NCSU, Raleigh, April 8, 2016.
481. Uttamang, P., **V.P. Aneja**, and A Hanna, 2016. “Analysis of air Quality in Bangkok, Thailand”, University Global Partnership Network (UGPN) Workshop on Air Quality, Climate, and Health, NCSU, Raleigh, April 8, 2016.
482. **Aneja, V.P.**, 2016. “Pollution and emissions from CAFOs”, The True Cost of American Food Conference, San Francisco, CA, April 14-17, 2016.
483. **Aneja, V.P.**, 2016. “Is Nitrogen The Next Carbon? The Role of Agriculture on Air Quality and Climate”, Columbia University, NY, NY, April 22, 2016.
484. Bray, C., Battye, W., **V.P. Aneja**, D. Tong, P. Lee, and Y. Tang, 2016. “Impact of wildfires on atmospheric ammonia concentrations in the US: Coupling satellite and ground based measurements”, Air and Waste Management Association Annual Meeting (ACE 109), New Orleans, LA, June 20 – 23, 2016.
485. Mikel, D., and **V. P. Aneja**, 2016. “Measurements and Analysis of Polycyclic Aromatic Hydrocarbons near a Major Interstate” The 1st International Electronic Conference on Atmospheric Sciences, July 16-31, 2016.
<http://sciforum.net/conference/ecas2016>
486. Bray, C.; Battye, W.; **Aneja, V.P.**; Tong, D.; Lee, P.; Tang, Y. “Impact of Wildfires on Atmospheric Ammonia Concentrations in the US: Coupling Satellite and Ground Based Measurements”, *1st Int. Electron. Conf. Atmos. Sci.*, 16–31 July 2016;
<http://sciforum.net/conference/ecas2016>
487. **Aneja, V.P.**, 2016. “Is Nitrogen The Next Carbon? The Role of Agriculture on Air Quality and Climate”, North Carolina State University, Raleigh, NC, September 19, 2016.
488. **Aneja, V.P.**, W. Battye, C. Bray, and P. Uttamang, 2016. “Ozone in Urban North Carolina: A Sustainability Case Study”, Suburban Sustainability: A Symposium, Hofstra University, L.I., NY, November 10, 2016.
489. **Aneja, V.P.**, 2016. “Global Climate Change: The Role of Agriculture and its Impact on the Environment”, First Annual Research Symposium: Turf Trends for Changing Times, Raleigh, NC, December 14, 2016.
490. Baker, Jordan, **V.P. Aneja**, and S.P. Arya, 2017. “Ammonia Emissions On The Delmarva Peninsula From Agricultural Practices: A Study Of Concentrations And Total Deposition From A Broiler CAFO”, North Carolina State University Graduate Symposium, Raleigh, NC, March 22, 2017.

491. Bray, C., W. Battye, **V.P. Aneja**, D. Tong, P. Lee, and Y. Tang, 2017. "Evaluating the impact of wildfires on atmospheric ammonia concentrations in the US using satellite measurements", NC BREATHE 2017 Conference, Raleigh, NC, March 28, 2017.
492. Baker, Jordan, **V.P. Aneja**, and S.P. Arya, 2017. "Ammonia Emissions On The Delmarva Peninsula From Agricultural Practices: A Study Of Concentrations And Total Deposition From A Broiler CAFO", NC BREATHE 2017 Conference, Raleigh, NC, March 28, 2017.
493. Uttamang, P., **V.P. Aneja**, and A. Hanna, 2017. "Measurements and analysis of Air Quality in Bangkok, Thailand", NC BREATHE 2017 Conference, Raleigh, NC, March 28, 2017.
494. **Aneja, V.P.**, 2017. "Is Nitrogen The Next Carbon? The Role of Agriculture on Air Quality and Climate", Washington State University, WA, April 3, 2017.
495. Lewis, B., J. Baker, P. Uttamang, and **V.P. Aneja**, 2017. "Effects of temperature on reactive nitrogen deposition", 26th Annual Spring Undergraduate Research Symposium, Raleigh, NC, April 12, 2017.
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